



Central Management System

CM3000

User's Manual

July 2011



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Manual Conventions

The following conventions are used throughout this manual.



	The caution symbol is intended to alert the user of the importance of the particular installation and operating instructions. Failure to comply may damage the system.
	The information symbol is intended to provide additional information for the purpose of clarification.

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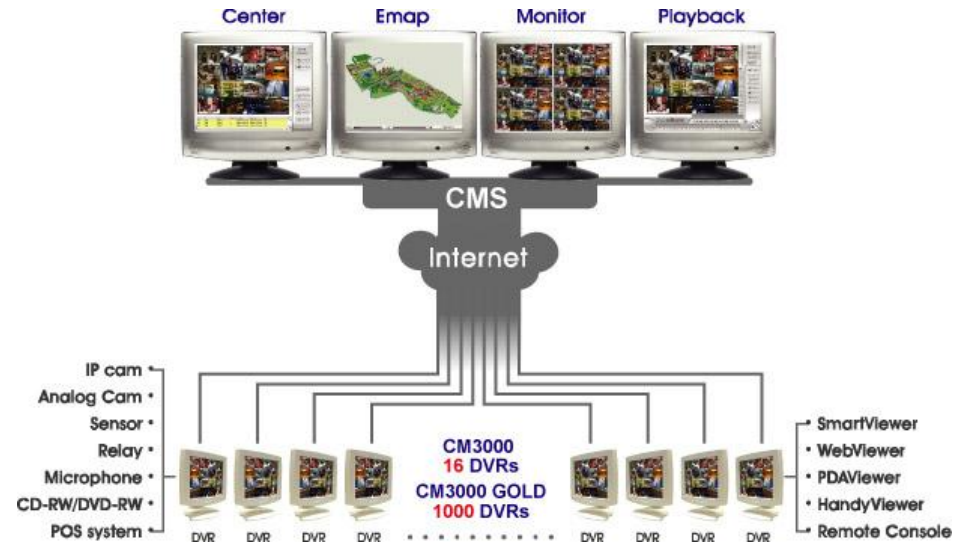
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Chapter 1 Introduction

The AVer™ CM3000 is a central monitoring system that enables user to monitor up to 1000 DVR servers (see also [Chapter 1.1](#) for updating to **Gold** version) through an internet connection. Like the DVR program, the CMS system also automatically records and displays video when an event has occurred on the remote side of the DVR server. You can also playback video files locally or download from a remote DVR server.




The CMS system Supports Single, Dual, Triple and Four monitor displays. User can operate the CMS system application on different monitors.



1.1 Upgrading to CMS GOLD Version

The CMS can be upgraded by installing a USB software License (USB Dongle). After installed the USB dongle, CMS can monitor up to 1000 remote DVR servers. The USB dongle provides three type of license for customer choice:

1 ~ 64 Clients(DVR)	65 ~ 150 Clients(DVR)	151 ~ 1000 Clients(DVR)
<div><div></div><div>Without install a USB dongle, CMS only can monitor 16 DVR and some functions are not available.</div></div>		

Please follow the below steps to upgrade the CMS.

1. Run the CMS application.
2. Plug in USB Dongle to your CMS server.
3. The CMS system will detect it automatically and the driver installation dialog will pop up. Click **OK** to install the driver.
4. If user chooses to install driver later, then un-plug the USB dongle and plug in again later for installing.
5. After installation completed, the CMS system will restart automatically.
6. **DO NOT** un-plug the USB Dongle while the DVR application is operating, it may cause the application crash abnormally.

1.2 Dual Monitors setting

Video configuration is different for each different VGA chipsets. Please follow the steps below to setup the dual monitors display.

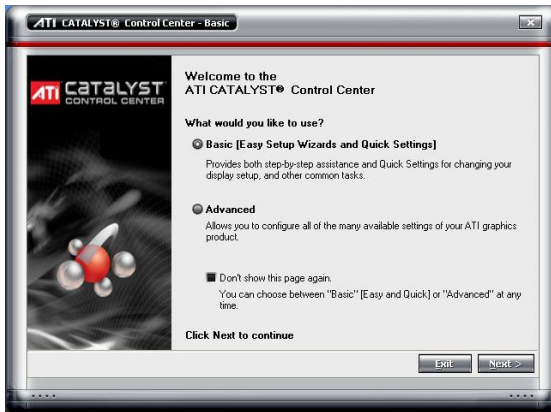
The CMS application supports resolution in 1280 x 800 、 1024 x 768 、 1280 x 1024 、 1440 x 900 、 1680 x 1050 、 1920 x 1080 and 1920 x 1200.

1.2.1 Graphic card with ATi chipset

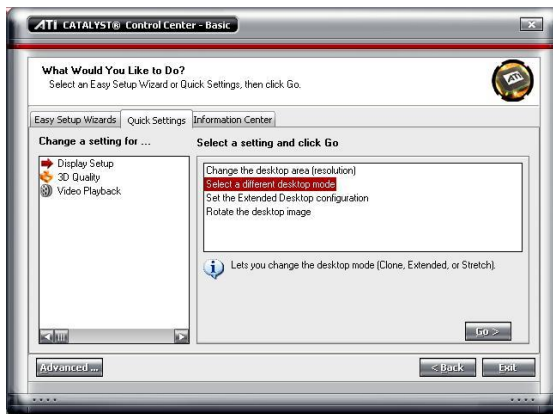
1. Enter the ATI Catalyst Control Center, user can click the short-cut or right click on the screen.



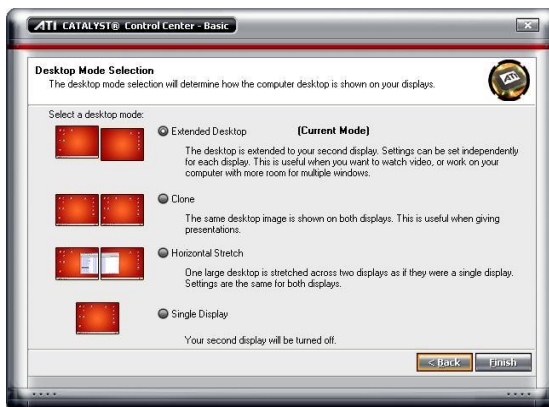
2. There are two modes to select — Basic and Advanced.



3. If user selected Basic mode, press the **Quick Settings** tab. Then select the **Select a different desktop mode** and click **Go**.



4. Select the **Extended Desktop** and then click **Finish**.



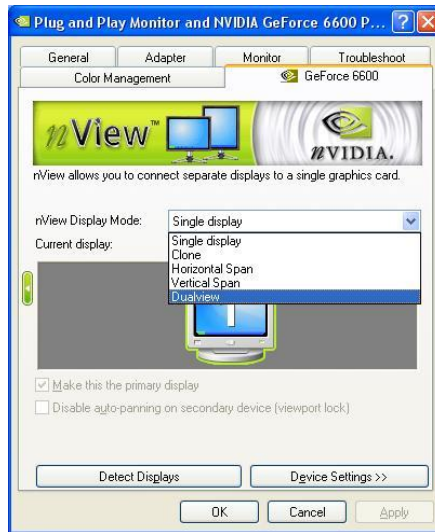
5. If user selected the Advanced mode, click the **View** button.
6. In **Display Manager**, right click on the second Display on the right side and select **Extend Main onto monitor**.



7. Adjust each monitor resolution to 1280 x 800 、 1024 x 768 、 1280 x 1024 、 1440 x 900 、 1680 x 1050 、 1920 x 1080 or 1920 x 1200.

1.2.2 Graphic card with NVIDIA chipset

1. Click the NVIDIA nView, and select the **Dualview** mode.
2. Adjust each monitor resolution to 1280 x 800 、 1024 x 768 、 1280 x 1024 、 1440 x 900 、 1680 x 1050 、 1920 x 1080 or 1920 x 1200.



3. To review if the display mode is correct, you can check the task bar. The task bar will show on the first monitor only.



Monitor 1

Monitor 2

Chapter 2 Software Installation

This chapter describes how to install the CM3000 software.



- Before installing the software, make sure the Windows OS patches are up to date and the video graphic card driver is up to date.
- Please disable the **User Account Control (UAC)** function before install the CMPC program. To disable UAC, please go to **Control Panel >> User Account Control**. **After disable UAC function, please restart system, and then, install CMPC program.**



To ensure you have the latest copy of the CM3000 software, download the updated version from the following site:

Worldwide :

<http://surveillance.aver.com/download-center> >> **Software Application >> CM3000 >> Software**; Click **Search** button

2.1 Minimum System Requirements

First, must verify if the computer meets the minimum system requirements.

CPU	Pentium® 4 3.0GHz or above recommended
OS	Windows XP Professional 32 bit/ 7 32bit & 64bit
RAM	512MB for dual display,1GB for Quad display
Hard disk	120GB or higher
Media	CD-ROM drive
VGA	32-bit high color SVGA graphics card with 256MB video memory and DirectDraw® / YUV Rendering Capability
Audio	Sound card and speakers
Internet capacity	10/100 Base-T Ethernet card or Gigabit Ethernet

2.2 Installing the CM3000 Software in Windows XP/Vista/7

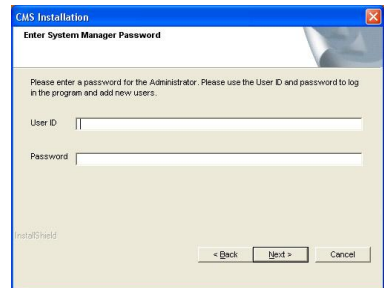


DO NOT install CMS application, NV DVR application, and MXR Client Software at the same computer system.

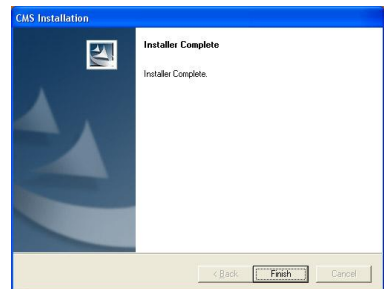
1. Place the installation CD into the CD-ROM drive then click **Install CM3000**. And follow the on-screen instructions.




2. Please carefully read the license agreement. Click **Yes** to accept the agreement.
3. Enter the administrator ID and password.




4. Click **Finish**.



5. User may now run the CMS program. To run the application, click  on your PC desktop or click **Start> >CMS > CMS >CM3000**.

Chapter 3 Using the CMS


3.1 Running the CMS Software

To run the application, double-click  on your PC desktop or click **Start > CMS > CM3000**.

For security purposes, some of the features would require you to enter a User ID and Password before they can be accessed. When the Authorization dialog box appears, key in your User ID and Password. (If this is the first time, enter the one you have registered when installing the software.)



3.1.1 Using the Virtual Keyboard

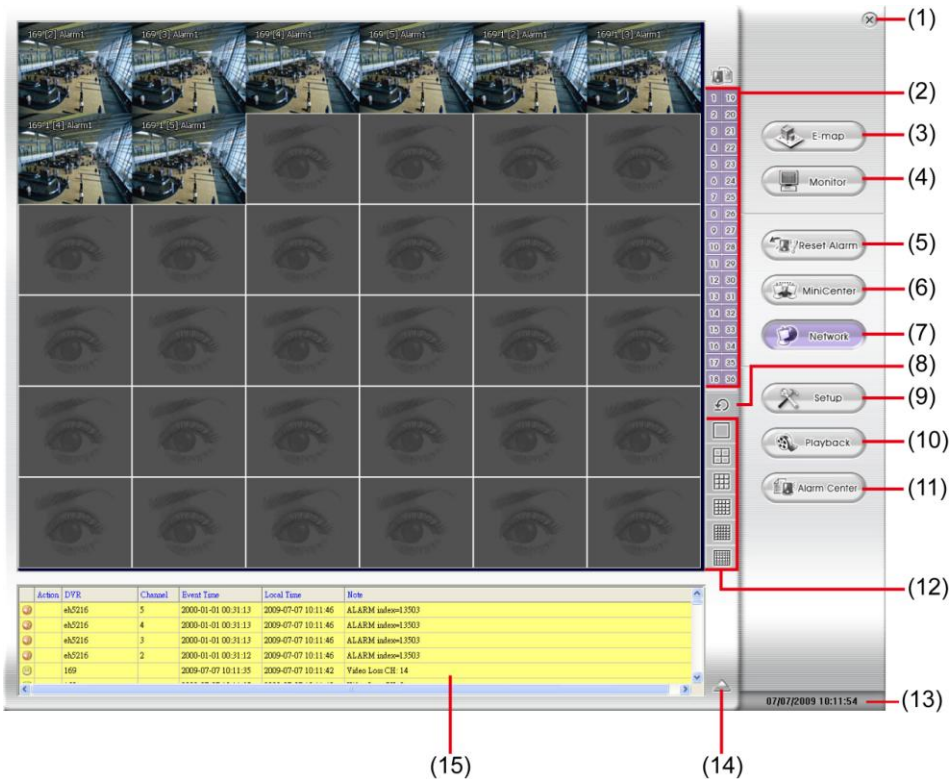
If the keyboard is not available, you may use the Virtual Keyboard. Just click  to show the virtual keyboard. For uppercase and lowercase, click **shift** button.



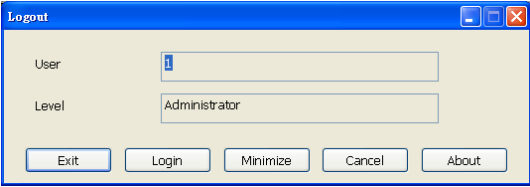
3.2 Using the CMS Application

When an alarm occurred on the DVR server, the video is transmitted to the CMS and display on the main screen. The transmit video can be an image or live video. User can select the type of video transmitting in **System setting** (see also [Chapter 4.1](#)). You may download and playback the complete video directly from the DVR server by clicking on the event log. **Make sure the main DVR server is set to send video to the CMS when an alarm has occurred.**

The video stream before the eye indicates the latest occurrence. Also, there is a red frame which indicates the latest occurrence when the video transmitting is alarm image type.



CMS Center in Alarm Live Video Mode

Name	Function
(1) Exit	<p>Call up the Logout dialog box.</p> <p>In the logout dialog box, you may do the following:</p>
	
	<ul style="list-style-type: none"> - Click Exit to close the CMS program. Only the administrator is authorized to access this command. - Click Login to sign-in as a different user. - Click Minimize to reduce the CMS to taskbar button. The authorization is required, please enter the password. - Click Cancel to close the Logout dialog box. - Click About to find out more about the software and update CMS firmware. <p>Click Update in Product Information window to upgrade the newest CMS application. In Live Update window, select the Server Site and Address and click Update.</p>
(2) Camera ID	<p>Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view the camera. This function only available in Alarm Live Video mode.</p>
(3) E-map (F3)	<p>Switch to display the map and show the location of the DVR server on the map. If you are using a single monitor, press ESC to revert back to the CMS main application(see also Chapter 4.6.2)</p>
(4) Monitor (F4)	<p>Switch to display live video from the selected DVR servers group. If user is using a single monitor, press ESC to revert back to the CMS main application(see also Chapter 3.3).</p>
(5) Reset Alarm	<p>Click to reset all DVR alarm status</p>
(6) MiniCenter Viewer	<p>To call out the MiniCenter viewer. Also, user can double click on screen or alarm event to call out the MiniCenter Viewer.(Also refer to Chapter 3.4)</p>
(7) Network	<p>Enable/disable the remote alarm data received. This is activated automatically when the CMS software starts up.</p>
(8) Refresh	<p>To refresh the alarm video that display on the screen. This function only available in Alarm Live Video mode.</p>
(9) Setup	<p>Configure the CMS system settings. Only the administrator is authorized to access this command. (see also Chapter 4)</p>
(10) Playback	<p>Select to playback video from the local hard disk or remote DVR server (see also Chapter 5).</p>
(11) Alarm Center	<p>To view, search, and navigate the alarm (see also Chapter 3.5).</p>
(12) Split Screen Mode	<p>Select from 6 different split screen types to view all the cameras. It also allows you to switch and view different camera number by click Camera ID in a single screen mode. This function only available in Alarm Live Video mode.</p>
(13) Status	<p>Display the current date, and time</p>
(14) Log extender	<p>Expand and reduce the log viewer</p>

Name	Function
------	----------

(15) Log viewer List the entire info in event mode or text mode from all DVR servers.

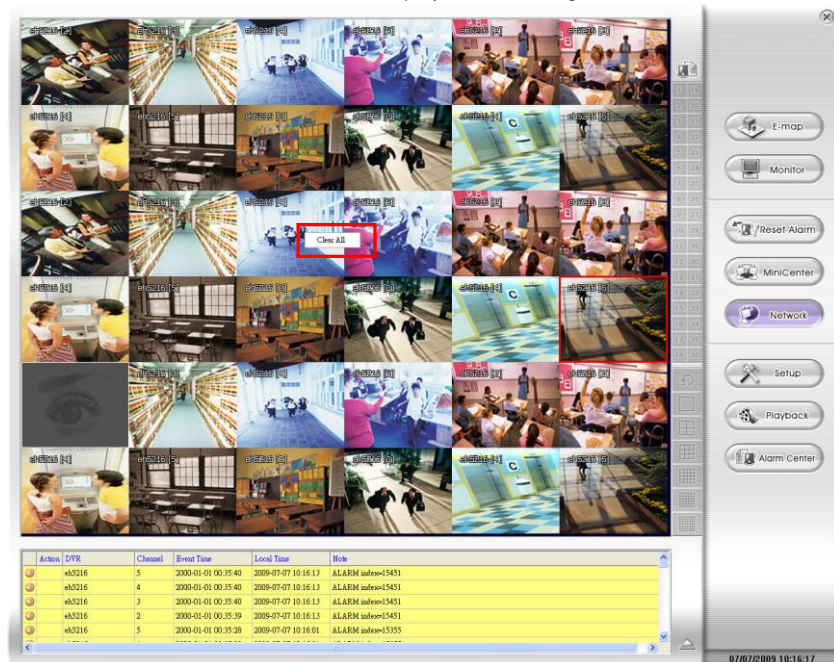


There are a few Hot keys for quick switching between the different applications or display mode on a single monitor system.

- **F1:** displays current DVR server information on the CMS Monitor screen
- **F3:** Switches to E-Map mode
- **F4:** Switches to Monitor mode
- **Esc:** Switches back to the CMS application main screen



When CMS Center in **Alarm Image** mode, right-click on the alarm image will call out **Clear All** short-cut. Select to clear all current displayed alarm images.



CMS Center in Alarm Image mode

3.3 Using the Monitor

When user has setup the monitor set in Camera Setup (see also [Chapter 4.3](#)), then click **Monitor** to view all selected cameras live video and playback. The monitor will switch to monitor mode, if user using more than one monitor, then all enabled monitors will switch to monitor mode.



Right-click on the channel screen could select to start recording.




Dual Monitor Screen

The following will describe the buttons function on Monitor interface.



Name	Function
(1) Center	Back to CM3000 main UI(center UI)
(2) Monitor Controller	To call out monitor controller dialog box. User can manage the monitor set in monitor controller dialog(see also Chapter 3.3.1)
(3) PTZ	To call out PTZ control panel(see also Chapter 3.3.2)

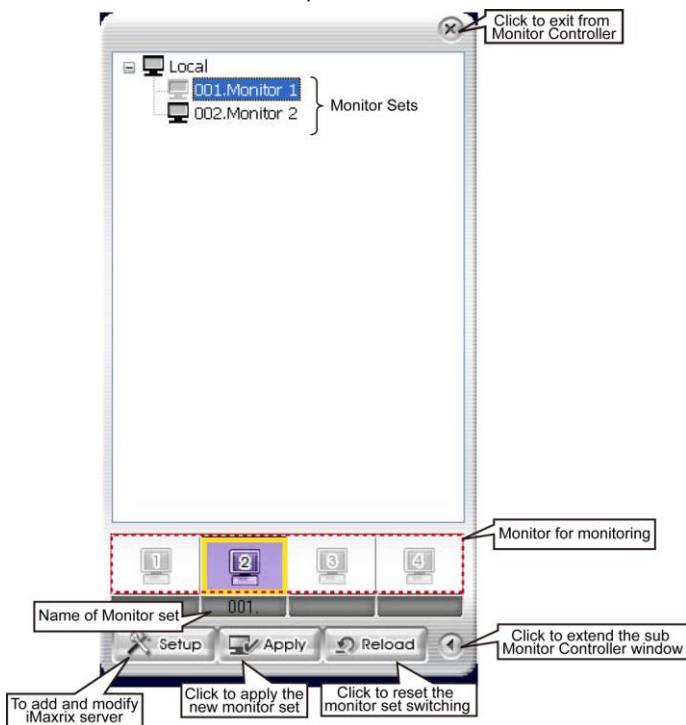
Name	Function
(4) Audio	Enable/disable audio. When audio is enabled, user will see the audio icon on screen, click on the audio icon (audio icon will turn to green  of channel to hear the sound. Each time only can play one channel's audio.
(5) Monitor Name	Display name of current monitor set.

3.3.1 Using the Monitor Controller

User can use Monitor Controller to switch different monitor set for monitoring and add/delete the channel in monitor set.

i User needs to create monitor set in order to using Monitor Controller. To create monitor set, please go to **Setup > Camera** (see also [Chapter 4.3 Camera setup](#))

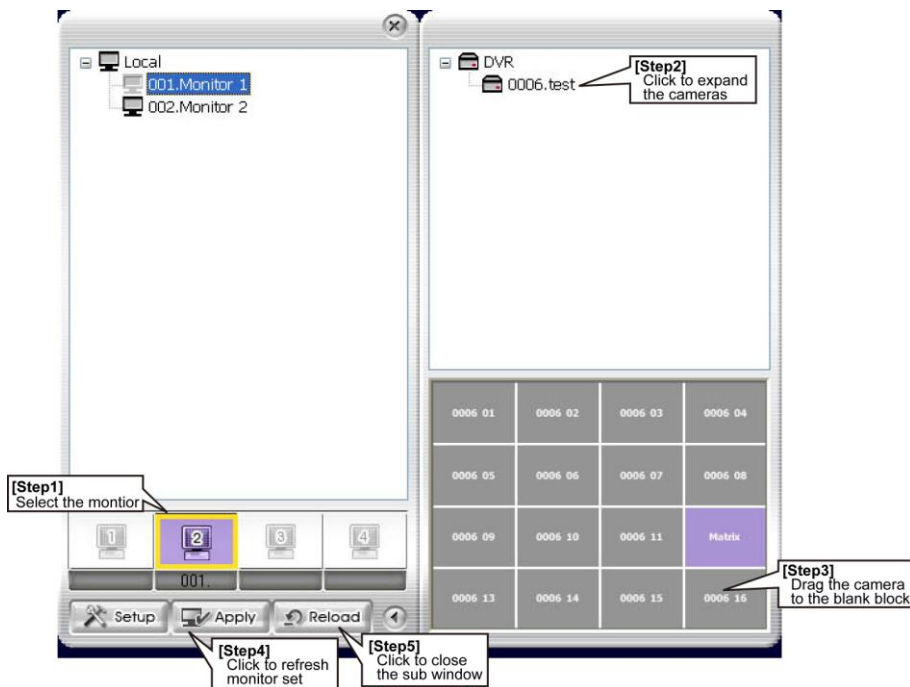
1. Click 
2. The Monitor Controller window will show up as below shown:



- i** - The monitor set is gray that indicates the monitor set is selected and been monitored.
- The monitor 1 ~ 4 are purple that indicate the monitor is monitoring.
- Right-click on monitor and select the **Recover** to reset the monitor.

3. Drag the monitor set from monitor list to the monitor (1 ~ 4) and click **Apply** to activate it. To reset the monitoring group, click **Reload**.
4. To configure monitor set, click arrow button to expand the sub Monitor Controller window.
5. Select the monitor. The DVR servers are included in the monitor set will list on sub Monitor Controller window. The lower part of window display all monitored channels in the monitor set.

6. To add new channels, click the DVR server to un-fold the available cameras. Drag the camera to the blank channel block that has no channel number and name display
7. To change the monitored channels' position, please delete the monitored channels and drag the channels to the new position. To delete channels from monitor set, right-click on channel and select **Recover**.
8. Click **Apply** to refresh the monitor set.
9. Click arrow button to close the sub window.



■ To Add the Remote iMatrix Server

User can add more remote iMatrix Servers and modify the monitored channel of the iMatrix servers from remote site. iMatrix servers can be removed and modified by clicking **Delete** and **Edit** button.



The remote iMatrix server only can be viewed and modified channel of monitor, add /delete channel of monitor is not allowed.

1. Click **Setup** from Monitor Controller dialog box.
2. The Matrix Select window will show up.

NO	Type	Name	IP/Domain Name	Port	User	Password	Description
01	Local	Local	127.0.0.1	80	1		

Buttons: Add, Delete, Edit, Apply, Cancel

3. Click **Add** button to add a remote iMatrix server.
4. Fill in the **Name**, **IP/Domain Name**, **Port**, **User** (login ID), **Password** and **Description** of the remote iMatrix server. Enter the **Contact Information** (**Phone**, **Mobile**, **Email**, **Address**, **Description**) for emergency contact. Mark **Show Image in Monitor block** if user wants to view the image of the channel at the Monitor Controller window(see also [Chapter 3.3.1](#))
5. And then, click **OK** to save the setting.

Setting

Name:

IP/Domain Name:

Port:

User:

Password:

☐ Show Image in Monitor Block

Contact information

Phone:

Mobile:

Email:

Address:

Description:

Buttons: OK, Cancel

6. The iMatrix will be added into the iMatrix list in iMatrix Select window.
7. To switch the iMatrix server, select the iMatrix server and click **Apply**.



Only can select one iMatrix server at a time.

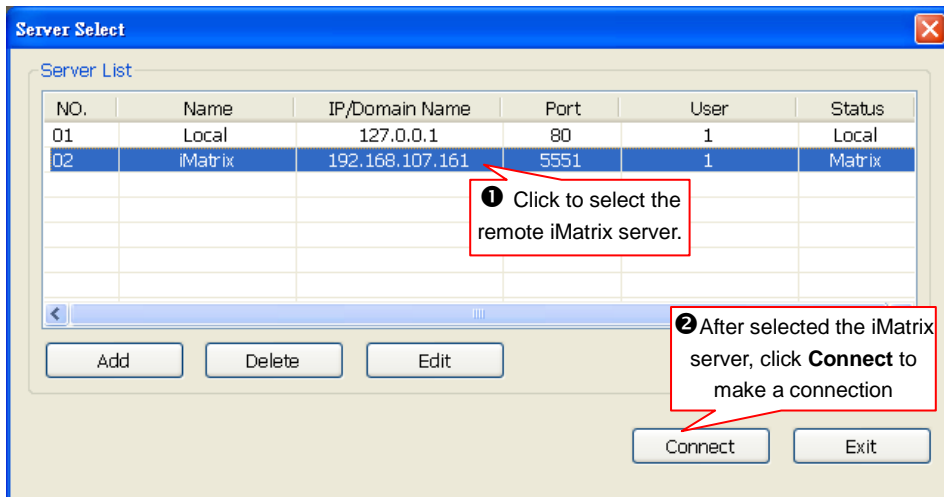
8. To delete the iMatrix server, select the iMatrix server and click **Delete**. To modify, click **Edit**.

■ **To Modify the Remote iMatrix Server**

User can modify the monitored channels on Monitor Controller window. Also, the modification can be applied to the remote iMatrix server.

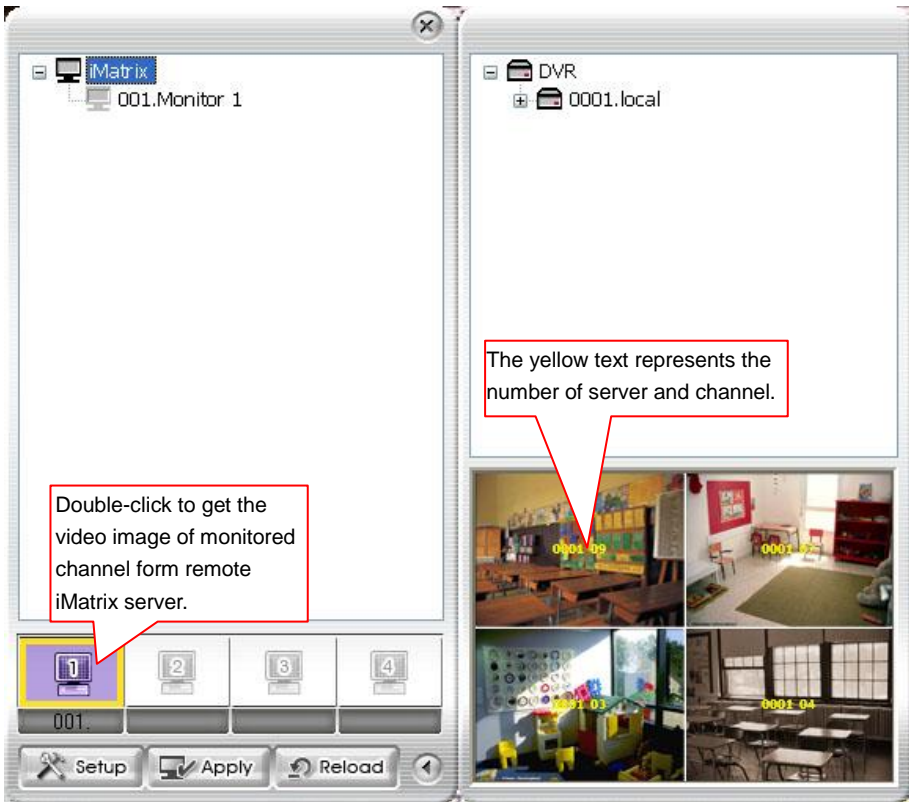
[Step 1] Select the remote iMatrix server.

1. Click **Setup** button to call out **Server Select** window on Monitor Controller window.
2. Select the remote iMatrix server from **Server Select** window. If remote iMatrix server hasn't been added, click **Add** to add a remote iMatrix server(see also [To Add the Remote iMatrix Server](#))
3. After selected the remote iMatrix server, click **Connect** to make a connection.



【Step 2】 To get the video image of monitored channel from remote iMatrix server

1. Double-click the monitor icon to get the video image of monitored channel from remote iMatrix server.
2. User will see the video image of monitored channel display on lower part of the sub-Monitor Controller window.



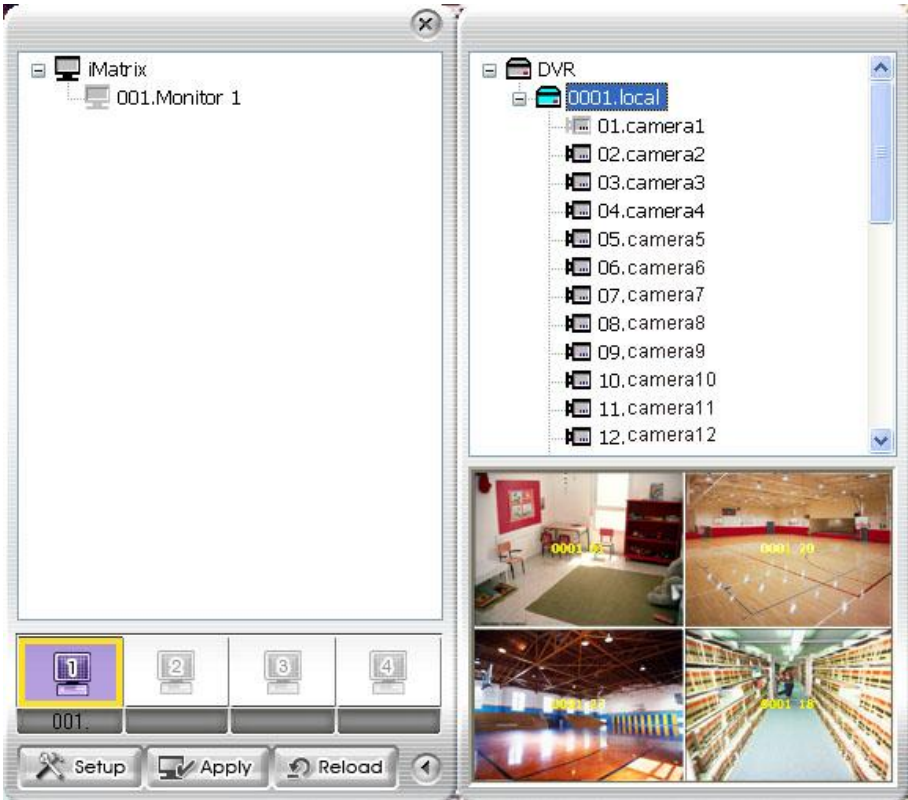
【Step 3】 To modify the monitored channel of the remote iMatrix server

1. Click on the + of the DVR server icon to extend the list of channels on sub-Monitor Controller window.
2. Drag the channel wants to monitor to the channel that located on lower part of sub-Monitor Controller window. The channel will be switched.



The camera icon in gray indicates the camera has been selected and monitored.

3. Click **Apply** to update the modification to the remote iMatrix server.
4. User can go to iMatrix server to check that the monitored channel will change right away.




3.3.1.1 To Monitor CMS Server from iMatrix Server

The iMartix server can connect to CMS and remote monitor CMS.

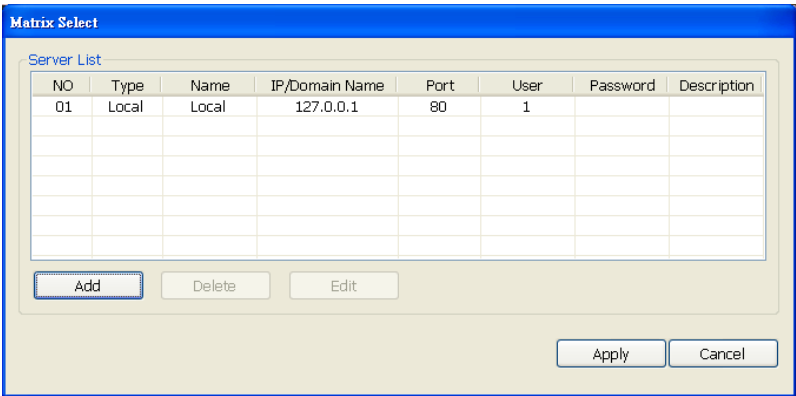
User can add remote CMS servers to monitor. The added remote CMS server can be deleted and modified by click **Delete** and **Edit** button in Matrix Select window.

i The remote CMS server only can be viewed. To add and delete camera of monitor set is not allowed.

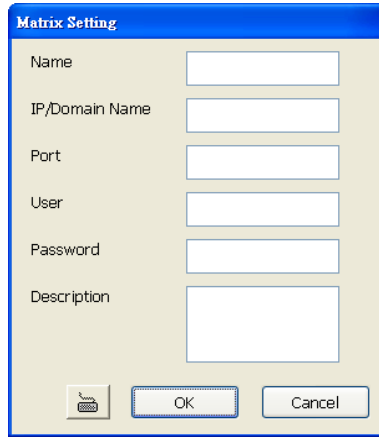
- 1. Click  from iMatrix main UI.
- 2. The Monitor Controller window will show up as below shown:



- 3. Click **Setup** from Monitor Controller dialog box.
- 4. The iMatrix Select window will show up.



5. Click **Add** button to add a CMS server.
6. Fill in the **Name**, **IP/Domain Name**, **Port**, **User** (login ID), **Password** and **Description** of the remote CMS server. And then, click **OK** to save the setting.



The image shows a 'Matrix Setting' dialog box with a blue title bar. It contains several input fields for configuration: 'Name', 'IP/Domain Name', 'Port', 'User', 'Password', and 'Description'. At the bottom, there are three buttons: a small icon button, an 'OK' button, and a 'Cancel' button.

7. The CMS server will be added into the iMatrix list in iMatrix Select window.
8. To switch to the CMS server, select the iMatrix server and click **Apply**.

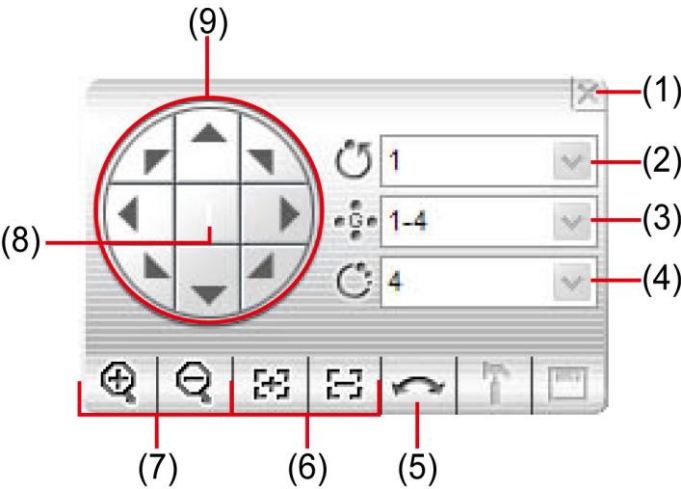
i Only can select one CMS server at a time.

9. The monitor screen will display the selected remote CMS server screen view.



Monitor UI of iMatrix Server

3.3.2 Familiarizing the Buttons in PTZ Camera Control Panel



Name	Function
(1) Close	Exit PTZ camera controller.
(2) Camera preset position number	Move the PTZ camera to the preset point.
(3) Group AutoPan	Select to automatically operate PTZ camera in group.
(4) Direction buttons' moving speed	Adjust the moving speed of the PTZ camera lens. This speed will apply to the (11) Direction buttons' moving speed only.
(5) AutoPan	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(6) Zoom +/-	Zoom in and out the image.
(7) Focus +/-	Adjust the focus manually to produce clear image.
(8) Camera ID	Display the PTZ camera number that is being operated.
(9) Direction buttons	Move and position the focal point of the PTZ camera. The support of direction button depends on the PTZ camera.

3.3.3 Live Playback the Recorded Video


User can playback recorded video immediately while monitoring from the local CMS server if the recording is enabled.

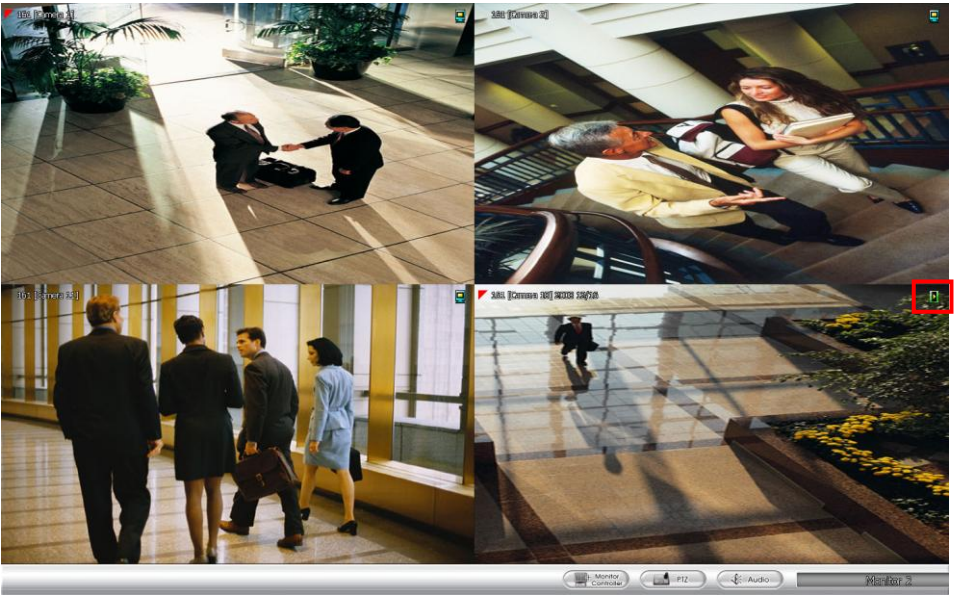


- Playback function must be enabled. Please go to **Setup > Camera** and select the monitor set and enable the playback function (see also [Chapter 4.3 Camera setup](#))
- Playback doesn't support on EB series.

1. In Monitor mode, click the preview icon of channel and the channel will start live playback.



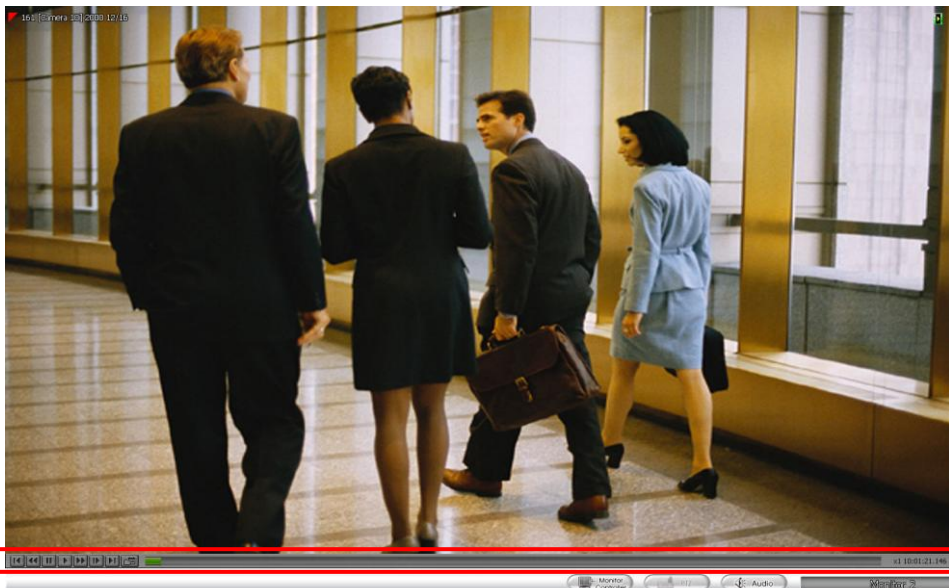
- The  icon indicates the channel is in live playback mode.
- Move the mouse course to the bottom of screen, live playback control bar will show up.



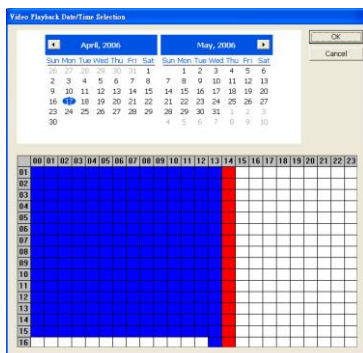
2. User can use the live playback control button to operate the playback.



- Click channel to switch to full screen mode for operating live playback control button easily.
- Only supports 4 channel live playback at the same time.



Button	Function
	Begin: Move at the beginning of video.
	Slower: Play the recorded video file at the speed of 1/2X, 1/4X, 1/8X, 1/16X, or 1/32X.
	Pause: Briefly stop playing
	Play: Play the video
	Next: Go to the next frame.
	Faster: Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x.
	End: Go to the end of the video.
	Select recorded vide to playback from remote DVR server hard disk. Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.



Button	Function
--------	----------

x1 10:00:01.261

Display playback speed and recoding time.

3.3.4 Viewing the GPS Data on the Monitor

If user has monitored the MOB DVR server, user can view the GPS information on Monitor. Also, user can view the location of MOB DVR server on the Google map.

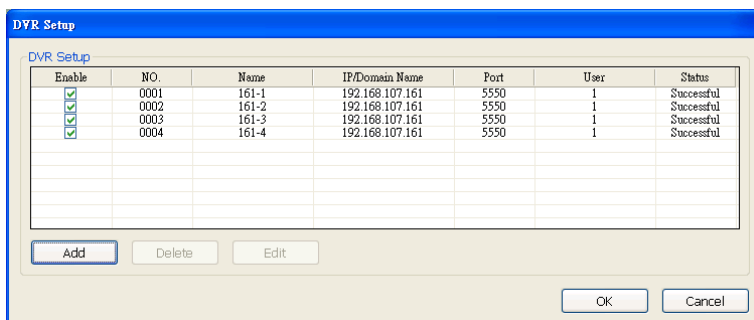
Display the GPS Data on the Monitor:

Follow the below steps to display the GPS data on the Monitor.

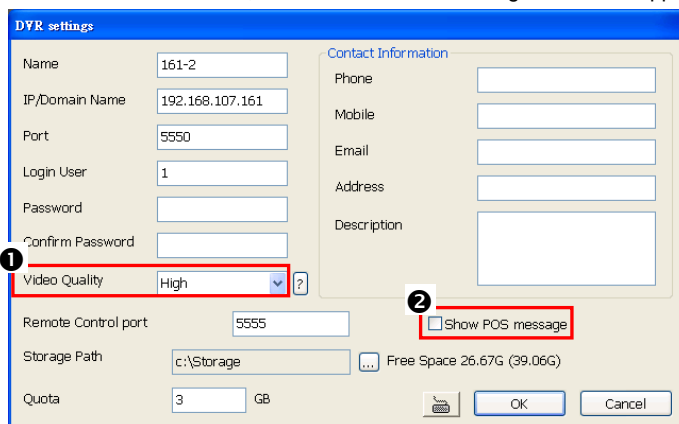
1. Click **Setup** in Center interface.
2. Enter the password for authentication. When CMS configuration selection appears, click **DVR**.



3. In DVR window, select the MOB DVR server or add the MOB DVR server (see also [Chapter 4.2.1](#)).



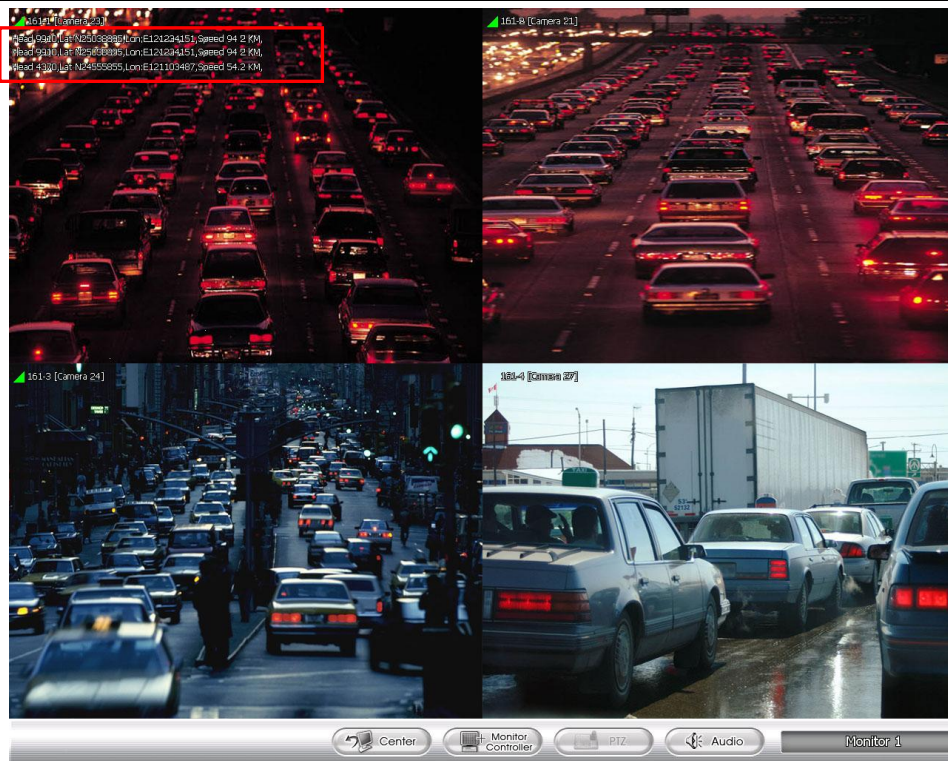
4. After selected the MOB DVR server, click **Edit**. The *DVR Setting* window will appear.



5. Select the **Video Quality** to **High**, and then, mark the **Show POS message** to display the GPS data on the Monitor.
6. Click **OK** to save and complete the change.
7. If the MOB DVR server hasn't been added any channels for monitoring, please refer to [Chapter 4.3](#) to add the channels for monitoring.
8. Click **Monitor** to switch to Monitor mode. User should see the GPS data display on Monitor UI as following shown:



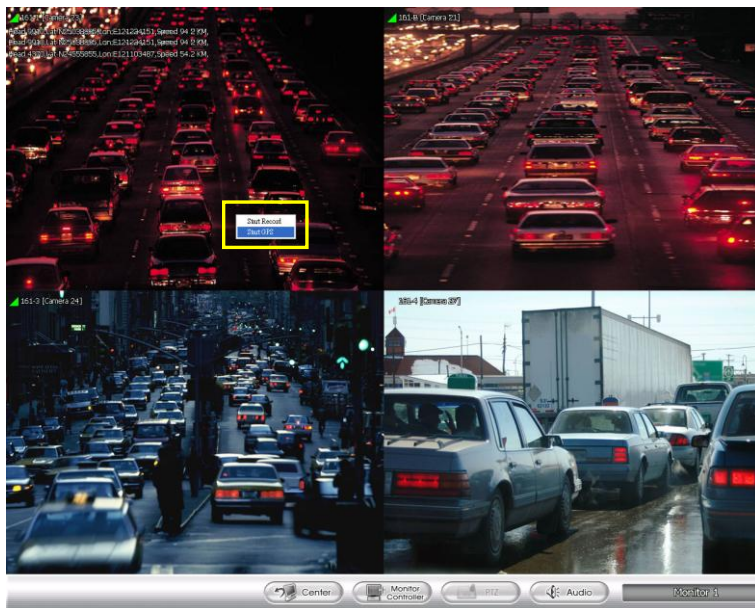
Position of the GPS data display relate to the setting of **Monitor Text Setting** in the *System setting*.



Viewing the GPS Data on the Google Map:

Following the below steps to view the GPS data on the Google Map.

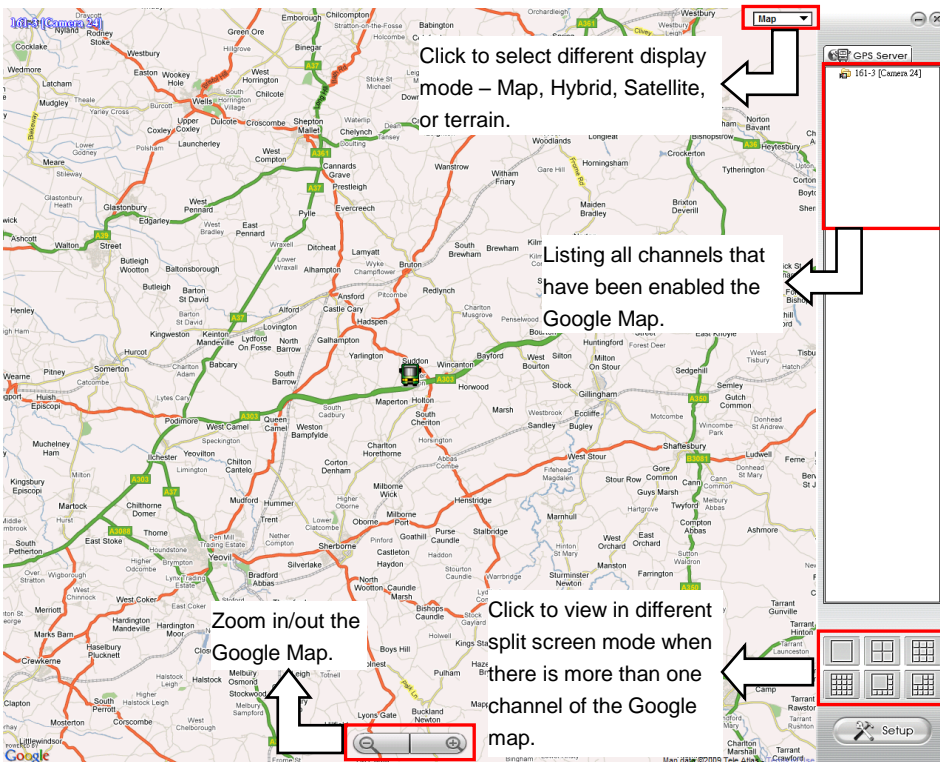
1. In the Monitor mode, right-click on the channel that is monitored from MOB DVR server.
2. The shortcut menu will appear. And then, select the **Start GPS**.



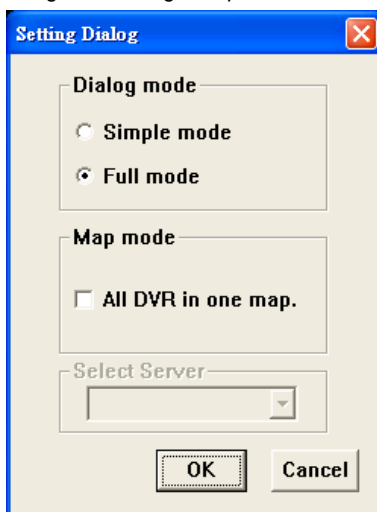
3. The *Google Map View* window will show up.



4. Click on **Maximum** button to enlarge the *Google Map View* window.



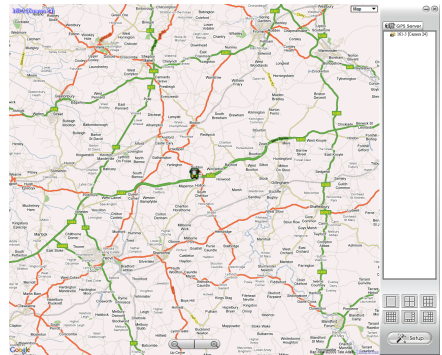
- Click **Setup** to setup the setting of the Google Map View window.



- **Dialog mode:** the way of the display of the Google Map View window. When in Simple mode, user can select the server from **Select Server**.



Simple Mode



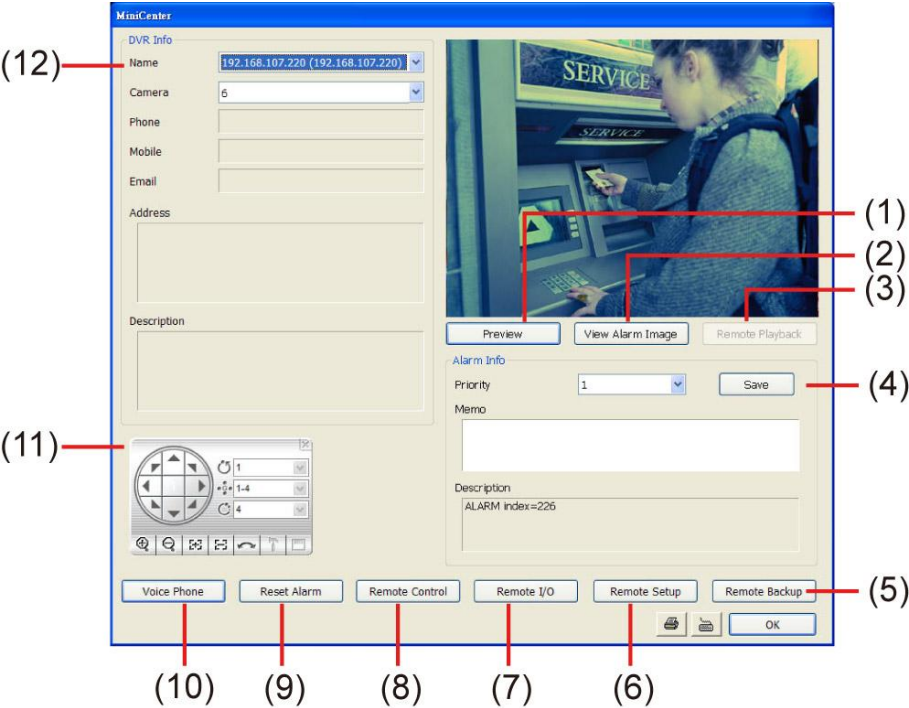
Full Mode

- **Map Mode:** the way of display the channel of the Google map. Mark **All DVR in one map** will enable all channels display on one Google Map window.

6. To disable the Google Map view, click **X**.

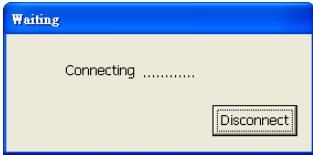
3.4 Using the MiniCenter Viewer

In Minicenter, user could configure, backup, operate the remote DVR, reset alarm and change priority of alarm, and setup the camera of remote DVR.



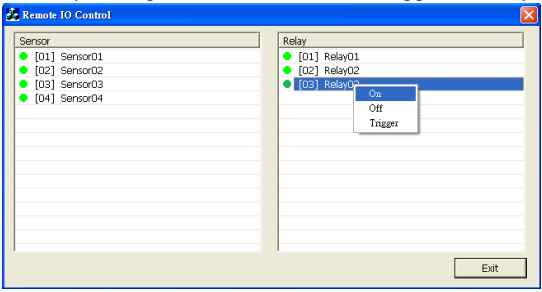

Name	Function
------	----------

- | | |
|-------------|--|
| (1) Preview | View live video. User can cancel the connection by clicking Disconnect button if the connecting time is too long. |
|-------------|--|



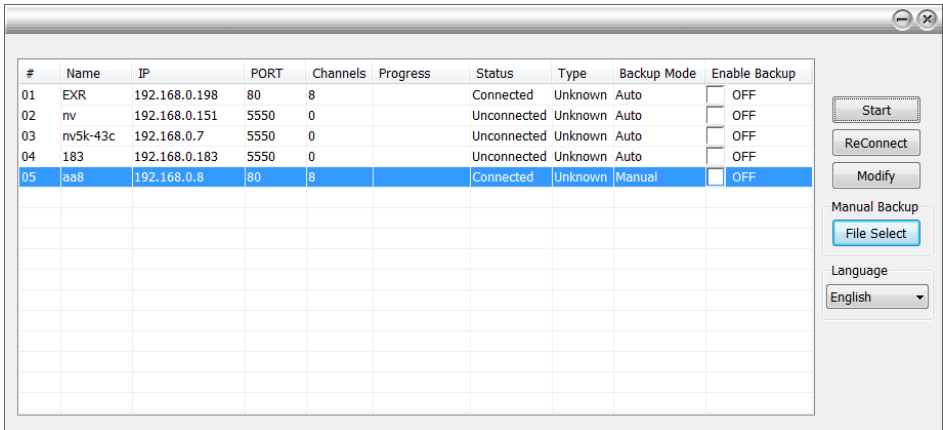
- | | |
|----------------------|---|
| (2) View Alarm Image | Playback the alarm video clip that is stored on the local hard disk. |
| (3) Remote Playback | Set the amount of time before and after the event to be retrieved from the DVR server. Click OK to accept and play the retrieved video and Cancel to void the request (see also Chapter 5.3) |



Name	Function
(4) Alarm Info	Display alarm event information which it was defined on DVR server. User can select priority of alarm event and enter some description in Memo column, and then click Save button to save the setting.
(5) Remote Backup	Remote Backup is purely for backing up the *.dvr file from the remote DVR sever(see also Chapter 3.4.1)
(6) Remote Setup	Change the remote DVR server settings(see also Chapter 3.4.2)
(7) Remote I/O	To view sensor and relay, also to turn on/off relay on remote DVR. Select the relay and right click to turn on /off or trigger the relay.
	
(8) Remote Control	Connect to the remote DVR server and operate the application. Select the DVR server from the Name drag down list and click the Remote Control button. To use this feature, make sure the DVR remote server is enabled. For more details on software usage, please refer to the DVR user manual.
	<div>  This feature works with NV series v 5.7 above only. </div>
(9) Reset Alarm	Clear the DVR server alarm list.
(10) Voice Phone	Enable/disable 2-way audio function. This function allows the CMS and DVR server to talk via the internet using a microphone. Make sure your microphone and speakers work before using this function. If the DVR server Talk to web-client setting is disabled, you will not be able to hear from the other side
(11) PTZ Control	Control the PTZ camera (see also Chapter 3.3.2).
(12) DVR Info	Display the DVR information that user has select to preview. User can switch to view different DVR or camera by drag down the Name or camera list. Phone, Address, Mobile, Email, and Description information were defined when set up the DVR server.

3.4.1 Remote Backup

Remote Backup is purely for backing up the *.dvr file from the DVR sever. You can select between Auto Backup and Manual Backup. Auto Backup continuously archives one hour of the recorded data at a time, starting from the specified date. As for Manual Backup, it only archives the recorded data of selected date.



Auto Backup:

1. Click **Remote backup** button from Minicenter UI.
2. The Remote backup window will show up and list all added DVR servers.
3. Make sure CMS is connecting to DVR servers. If lost the connection with DVR server, select the DVR server and click **Reconnect** button.
4. Select the DVR server that user wants to backup by marking the **Enable Backup** check box. The marked Enable Backup will change to **ON** status.
5. And then, the CMS will start to backup.

Manual Backup:

1. Click **Remote backup** button from Minicenter UI.
2. Select the DVR server and click **Modify** button.
3. Select the **Manual Backup** at DVR setting dialog. And, user can change the backup direction by clicking **Browse** button.
4. And the, click **OK** to save the setting.

DVR Setting

Name: EXR

IP: 192.168.0.198 User ID: superuser

Port: 80 Password:

☒ Auto Backup

Storage Path

☐ Disk Recycle

Folder Name	Free Space	Disk Space(Used)
C:\Auto_Backup	16.98G	29.29G

Begin Date: 7/14/2008

☐ Manual Backup

Storage Path: C:\Manual_Backup

5. The **Backup Mode** of DVR server will change to **Manual**.

#	Name	IP	PORT	Channels	Progress	Status	Type	Backup Mode	Enable Backup
01	EXR	192.168.0.198	80	8		Connected	Unknown	Auto	OFF
02	nv	192.168.0.151	5550	0		Unconnected	Unknown	Auto	OFF
03	nv5k-43c	192.168.0.7	5550	0		Unconnected	Unknown	Auto	OFF
04	183	192.168.0.183	5550	0		Unconnected	Unknown	Auto	OFF
05	see8	192.168.0.8	80	8		Connected	Unknown	Manual	OFF

Backup Mode

Auto

Auto

Auto

Auto

Manual

6. To execute manual backup, select the file first. Click **File Select** and select the files that user wants to backup and click **OK**.
7. Then, click **Start** to backup.

3.4.2 Remote Setup

Remote Setup is configuring DVR server from remote site.

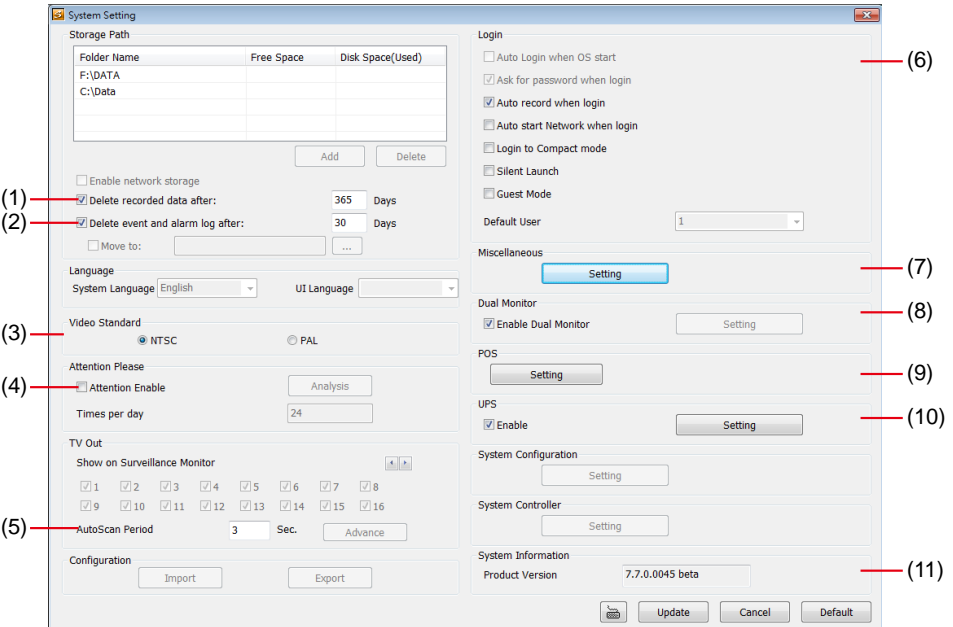
Click the **Remote Setup** button to call out the DVR server setup window.

i The remote setup contents will be varied that depends on the type of DVR (NV series, SA series, NX series, EB series, EH series, or EXR series) is monitored.

The following setup contents are NV series. Some of functions may not support on NX series and EB series.

3.4.2.1 System Setting

In the System Setting window, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.



(1) Delete recorded data after

If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the numbers of days in **Days** text box.

(2) Delete event and alarm log after

If you want the system to automatically erase the event and alarm log files after a certain days, enable the **Delete event and alarm log after** check box and enter the numbers of days in **Days** text box.

(3) Video Standard

Change and select the proper video system according to your camera video system. If the video system setting is wrong, the video would appear abnormal.

(4) Attention Please

Check the attentiveness of the person who is monitoring the system. You may set the number of times the Attention dialog box to appear in a day in **Times per day** text box.

When this feature is enabled, the **Attention** dialog box would appear. The person who is monitoring the system must enter the same number that appears from the left box at the right text box and then click **OK**.

(5) AutoScan Period

Set the display time gap from 3 to 10 sec. before it switches to the next camera.

(6) Login

Enable the conditions in Login section you want the system to automatically carry out.

- **Auto record when login**
Automatically start video recording when the NV DVR is executed.
- **Auto start Network when login**
Automatically connect to network when the NV DVR is executed.
- **Login to compact mode**
Switch to compact mode directly when the NV DVR is executed.
- **Silent Launch**
Enable the DVR system minimizes on the system tray automatically right after start up.
- **Guest Mode**
Automatically log in Guest mode when the NV DVR is executed. In guest mode, the functions are limited to preview and playback only.

(7) Miscellaneous

Enable the conditions in **Miscellaneous** section you want the system to perform.

- **Desktop Lock**
 - ✓ **Block window OS hotkey:** Deactivate the [Ctrl-Alt-Del] and [Windows] keyboard key functions.
 - ✓ **Block windows OS pop-up window:** To block any pop-up window from windows system.

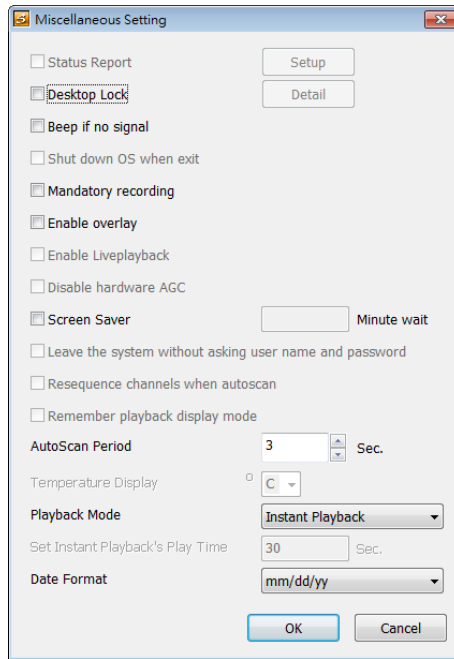


- **Beep if no signal**
Make sound when the video signal is lost.
- **Mandatory Record**
Always record video when software is running
- **Enable Overlay**
To enhance video signal for better video quality.



Enable overlay doesn't support on NV3000T and NV5000T card.

- **Screen Saver**
Set a period time to enter screen saver mode when system idle.
- **Auto Scan Period**
Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.
- **Playback Mode**
Select the mode of playback the video.
 - ✓ **Select date and time:** Select the date and time which user wants to playback.
 - ✓ **Play the last file:** Automatically playback the video from the last hour
 - ✓ **Instant Playback:** Automatically playback the video which has just recorded
- **Date Format**
Select the date format which wants to display in **Select date and time** playback mode



(8) Dual Monitor

To enable/disable dual monitor function.

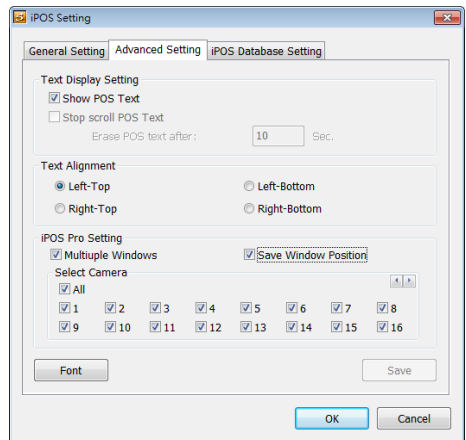
(9) POS

Set from which camera screen to display the data from the POS equipment. Click **Setting** to enter the setup window.

■ Advanced Setting

To setup POS text display position, text font and color.

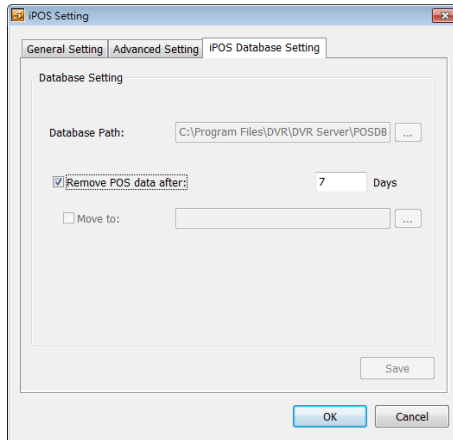
1. In the System Setting dialog box, POS section, click **Setting >> Advanced Setting**
2. Mark **Show POS Text** to allow POS data to be display on surveillance screen.
3. Select the POS data display position on surveillance screen – Left-Top, Left-Bottom, Right-Top, or Right-Bottom.
4. Mark **Multiple Windows** to allow more than one iPOS live data window display on the preview screen mode.
5. Mark **Save Window Position** that iPOS live data window position will be saved as next time call out position when close
6. Select the **Cameras** of iPOS live data that want to be display on Preview mode. To select all cameras, mark **All**.
7. To change the POS data font and color, click **Font**.



8. When it is done, click **Save** to complete the configuration.

■ POS Database Setting

Mark **Remove POS data after** the POS data will be delete from DVR hard disk on the day that user has setup.



(10) UPS (Uninterruptible Power Supply)

Protect the system from damaging, such as power surges or brownouts. This automatically gives time to close the NV DVR properly when the battery backup power has reached the Shutdown when capacity below percentage level setting.

The UPS device must be connected to your computer (refer to your UPS user's guide).



The UPS application must meet Windows XP or Windows 7 system requirements.

(11) System Information

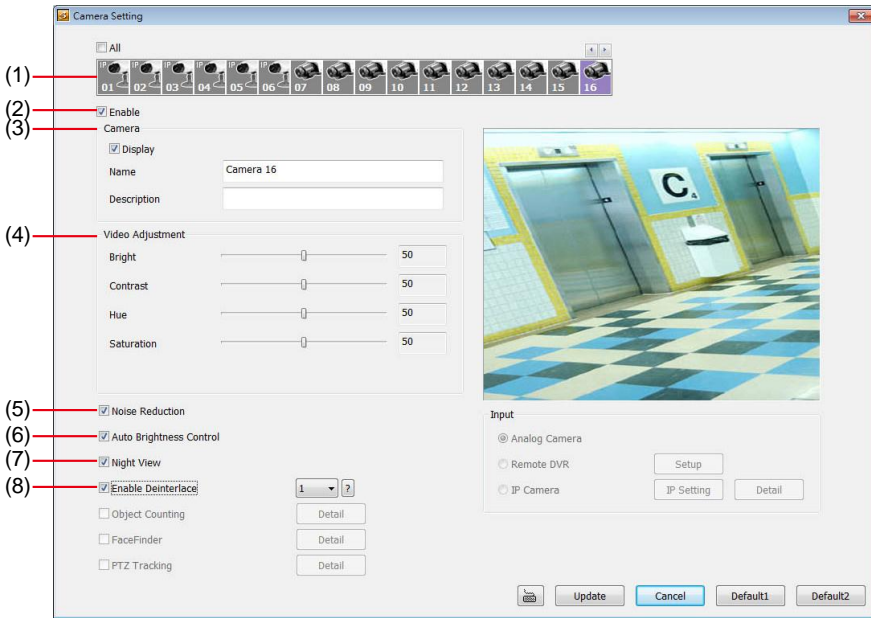
Display current NVR system firmware version.

3.4.2.2 Camera Setting

Select the camera from remote DVR servers to modify settings. In the Camera Setting window, click **Update** to save and apply the new settings, click **Exit** to exit without saving, and click **Default1/Default2** to revert back to original factory setting.



Some of settings are not available to the IP camera.



(1) Camera Icons

Select the camera number you want to adjust the video setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, Right click on the camera icon. To select one camera only, Left click on the camera icon. The camera icon turns red when it is selected.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Camera

- Display

Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.

- Name

Change the camera name.

- Description

Add a short comment.

(4) Video Adjustment

Adjust the Brightness, Contrast, Hue and Saturation of the selected camera.

(5) Noise Reduction

Reduce undesirable video signal and improve the quality of the video.



Noise Reduction uses lots of CPU resource. Please use this feature only if it is really necessary.

(6) Auto Brightness Control

Automatically adjust the brightness.

(7) Night View

Automatically adjust the exposure to make the image more visible especially when the site is dark. You can only use this function when the ***Auto Brightness Control is enabled***.

(8) Enable Deinterlace

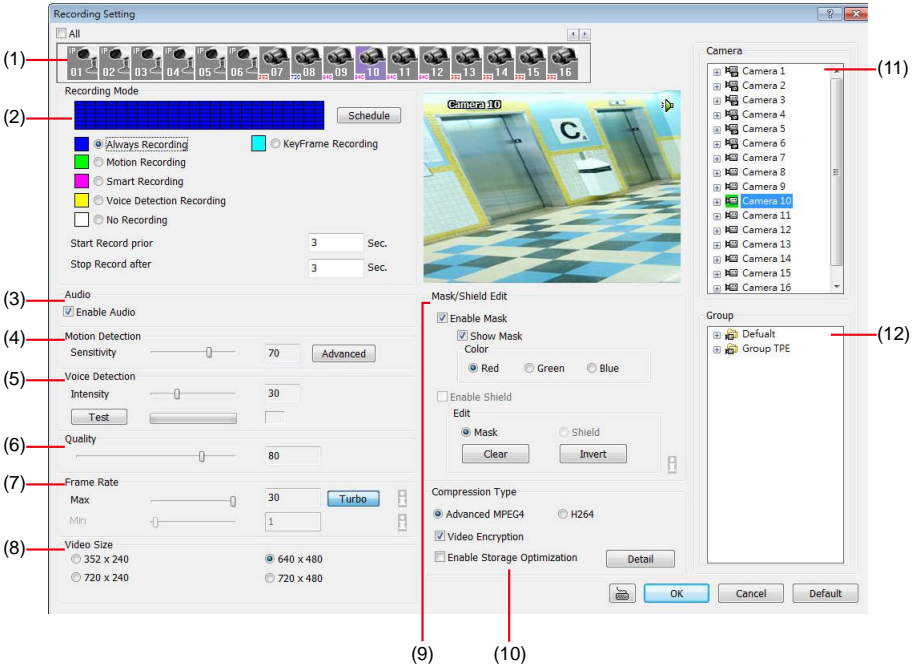
To enhance the video quality. Set the deinterlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

3.4.2.3 Record Setting

In the Recording setup window, click **OK** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.



Some of settings are not available to the IP camera.



(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns red when it is selected.

(2) Recording Mode

The blocks from 00 to 23 represent the time in 24-hour clock. To record in full 24 hours, select the recording mode and click the **⊙** button. If you want to only record at a particular time, click the colored block beside the recording mode then click on the time blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen. The recording modes are listed below:

- **Always Recording**
Record the video from the selected camera and save it to the designated storage path
- **Motion Recording**
Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.
- **Smart Recording**
Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting. Set the maximum and minimum frame rate setting in [\(6\) Frame Rate](#) section.
- **Voice Detection Recording**
DVR system will record when the voice exceeds the intensity value in **Voice Detection** setting.
- **No Recording**

The system won't do any recording.

(3) Audio

Select to assign the audio channel of the selected camera. You can only assign one audio channel to one camera source. This way you can record both audio and video.



An Audio I/O card is required to use this function.

(4) Motion Detection

Adjust the sensitivity of the motion detector. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

(5) Video Detection

Adjust the intensity of the audio detector. The system detects sound when it exceeds the intensity value.

(6) Quality

Adjust the video quality. The higher the value, the lower the compression level and uses more hard disk space.

(7) Frame Rate

Set the maximum number of frames to be recorded during motion and motionless state. The frame rate ranges from 1 to 30 for NTSC and 1 to 25 for PAL. The higher the frame rate, it uses more hard disk space.

(8) Video Size

Select the size of the video and click the ⊙ button. The higher the size, the larger the file it create.

(9) Mask/Shield Edit

Mask, mark an area on the screen to disregards the motion in the marked area and to only monitor outside the marked area. In the Mask/Shield Edit section, activate the **Enable Mask/Enable Shield** check box. Click and drag a frame on the screen to create Mask area.

(10) Compression Type

User can refer the table below to check the NV card supports what type of compression. H264 is the latest and advanced video compression format that delivers better video quality and smaller file size but this uses more CPU resource. Advanced MPEG4 and MJPEG, both provide a standard for color picture compression rate. MPEG4 uses higher compression rate and smaller file size. While MJPEG uses slightly lower compression rate and bigger file size.

	MPEG4	MPEG 4 Encryption	H264	H264 Encryption	MJPEG
NV3000T	✓	✓	✓	✓	✓
NV5000	✓	✓	✓	✓	✓
NV6000T	✓	✓	✓	✓	
NV7240	✓				
NV7480	✓				
NV8416T			✓		
NV9416T			✓		


Video Encryption



When NV7480 card has enabled one channel encryption, the all channels will be encrypted.

Enable/disable to encrypt the recorded video that way only the person who knows the password can clearly view the video playback. The file size would become 10 to 30% more. Enabling the Video Encryption check box, you will be prompted to enter the password and retype the password for confirmation. Make sure not to forget the password for you would not be able to decrypt the video without it.

The dialog box is titled "Video Encryption". It contains two input fields: "Enter Password:" and "Confirm Password:". Below these fields is a checkbox labeled "Show Password". At the bottom, there are "OK" and "Cancel" buttons. A "Warning:" section states: "Kindly note down your password. It is not possible to decode video stream without valid password. Password once lost cannot be recovered."

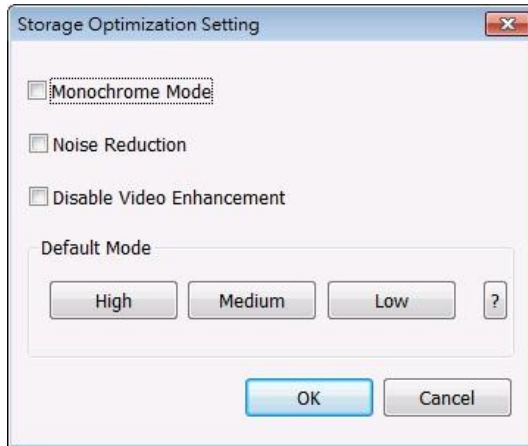
The  symbol would appear on the upper right corner of the encrypted video screen. You may see the video during live recording.



■ Enable Storage Optimization

Enable/disable to save more storage space. Click **Detail** button to select the type of storage optimization.

- ✓ **Monochrome Mode:** The video will record in black and white.
- ✓ **Noise Reduction:** To do the noise reduction before compression.
- ✓ **Disable Video Enhancement:** To shutdown video enhancement function.



User also can select the Default Mode High/Medium/Low. Click ? button to view default mode definition.

(11) Group

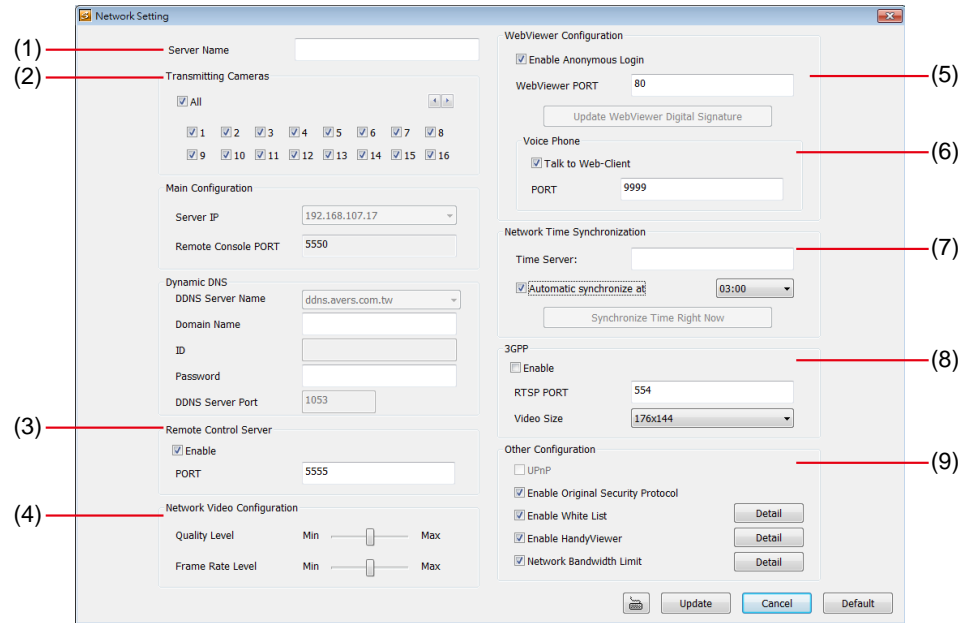
Click to view the camera group that user has been setup in **Camera setup** .

(12) Camera

Click to view the camera live video on screen.

3.4.2.4 Network Setting

In the Network Setting dialog box, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.



(1) Server Name

Assign a name for the DVR unit. Letters of the alphabet and numbers only.

(2) Transmitting Cameras

Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using WebCam, Remote Console, PDA Viewer and Hand Viewer (still image). To select all the cameras, enable the **ALL** check box.

(3) Remote Control Server

Enable/disable remote control from remote application (ex. CMS). Enter the remote accessing port in **Port** column.

(4) Network Video Configuration

Set up the video quality and frame rate for viewing and transmitting to the remote program. Scrolling adjust bar to set the **Quality level** and **FrameRate level**.

(5) WebCam Port

Activate **Enable Anonymous Login** to remotely access the DVR server without the need of password. The default of WebCam port is 80.

(6) Voice Phone

Voice Phone is a 2-Way Talk feature that allows the client and server to talk via internet using microphone. Make sure both microphone and speakers work before using this feature. If the **Talk to Web-Client** is disabled, the person in the DVR server side can only hear the voice from the client side that is when the WebCam 2-Way Talk button is activated.. The default port of voice phone is 9999.

(7) Network Time Synchronization

Adjust the DVR system time same as network time server. Fill in the **Time Server** IP address or domain name. Select **Automatic Synchronize** time to set automatic synchronize time on a daily basis.

(8) 3GPP

Enable 3GPP that allows user to use browser on the mobile phone to view recorded video. Just enter

http://DVR_Server_IP/3GPP on the browser of mobile phone, and then, user will receive the recorded video from DVR server. Fill the RTSP PORT for 3GPP connection. Select the video size for transmitting to user's browser on the mobile phone.

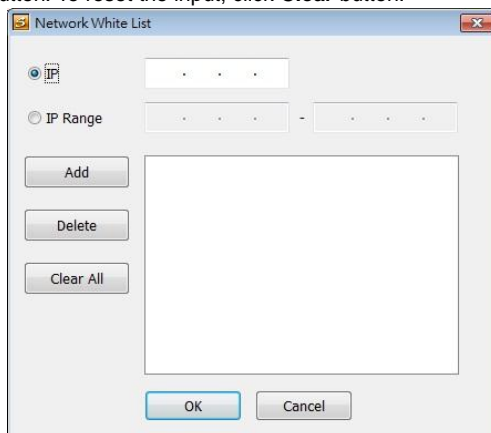
(9) Other Configuration

- **Enable Original Security Protocol**

Enable new version DVR system to accept remote software with former version. For example, if user uses CMS version 7.1 and connect to NV DVR server with version 7.3, and then, user has to enable this option to make it work. It is due to that DVR system has some new security protocol in DVR with version 7.3 and newer version, and it's not compatible with old remote software.

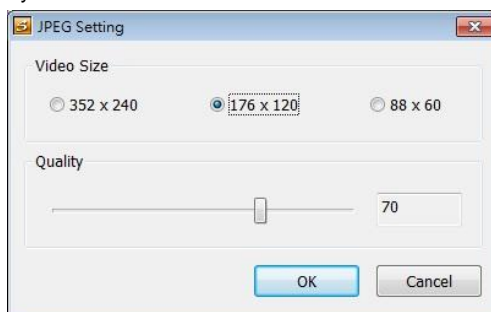
- **Enable White List**

An access permit list for the remote accessing of DVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.



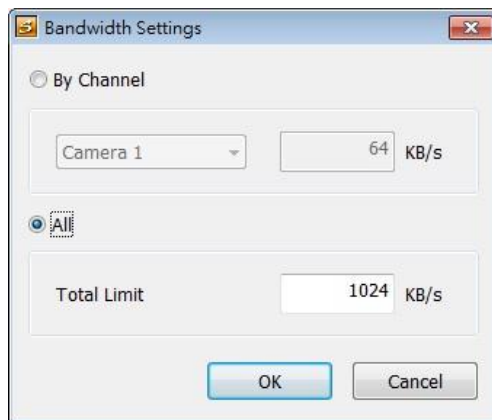
- **Enable HandyViewer**

Enable remote users to use a PDA or a mobile phone to access DVR server and select the video size and quality.



- **Network Bandwidth Limit**

- ✓ **By Channel:** Set the network bandwidth by each channel.
- ✓ **All:** Set the total network bandwidth consumption limit.



The image shows a 'Bandwidth Settings' dialog box with a title bar containing a yellow icon and a close button. It has two radio buttons: 'By Channel' (unselected) and 'All' (selected). Under 'By Channel', there is a dropdown menu showing 'Camera 1' and a text input field with '64' and 'KB/s' label. Under 'All', there is a text input field with '1024' and 'KB/s' label. At the bottom are 'OK' and 'Cancel' buttons.

Setting	Value	Unit
By Channel (Camera 1)	64	KB/s
All (Total Limit)	1024	KB/s

3.4.2.5 Schedule Setting

Schedule to record, backup, enable network, reboot and disable alarm of all the cameras either weekly or one time. The number from 00 to 23 represent the time in 24-hour clock. The left most column display the days in a week.

Schedule Setting

October, 2010

November, 2010

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	1	2		1	2	3	4	5	6
3	4	5	6	7	8	9	7	8	9	10	11	12	13
10	11	12	13	14	15	16	14	15	16	17	18	19	20
17	18	19	20	21	22	23	21	22	23	24	25	26	27
24	25	26	27	28	29	30	28	29	30	1	2	3	4
31							5	6	7	8	9	10	11

今天: 10/12/2010

Record

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
10/10 Sun																								
10/11 Mon																								
10/12 Tue																								
10/13 Wed																								
10/14 Thu																								
10/15 Fri																								
10/16 Sat																								

Clear

All

Update

Cancel

To Set the Schedule Setting:

- 1. Select the date in the calendar. Use ◀ and ▶ buttons to shift the calendar to the left or right.
- 2. Select the condition you want to schedule in the drop down list.
 - **Record**
Activate all the cameras to start video recording at the set time based on the Recording setting.

- Backup

Save another copy of all the data at the set time and specified backup path. NV DVR automatically updates and only backup the data that are not yet included in the archive. To assign backup path, click

Schedule Setting

October, 2010 November, 2010

Backup: WEEKLY

☒ WEEKLY
☐ ONE TIME

Backup To: ...

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
10/10 Sun																								
10/11 Mon																								
10/12 Tue																								
10/13 Wed																								
10/14 Thu																								
10/15 Fri																								
10/16 Sat																								

☒ Mirror Backup
☐ Incremental Backup

Clear Update Cancel

- ✓ **Mirror Backup:** Save a copy of all the data at the set time and specified backup path.
- ✓ **Incremental Backup:** Only backup the data that are not yet included in the archive from last time.



Make sure the backup folder and storage folder are not on the same drive.

- Network

Activate NV DVR remote system to access at the set time. After the appointed time, the Network function will be disabled. If the Network function is already enabled, the Network function will not be disabled when the appointed time has ended.

- Reboot

Restart the PC at the appointed time.



Make sure the Windows operating system is set **NOT** to require you to login user name and password. This way the system will be able to run NV DVR program.

- Disable Alarm

Deactivate the alarm at the set time temporarily.

3. Specify to either schedule it weekly or one time. Click ☐ to make a selection.
4. Click on the blocks to set the schedule. Or click **All** to select all. To store the setting, click **Save**. To remove the settings, click **Clear**.
5. To end Schedule Setting, click **Update** to exit and accept the setting and **Exit** to exit without saving the setting.

3.4.2.6 Alarm Setting

In the Alarm Setting dialog box, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **OK** to exit and save the setting, **Cancel** to exit without saving, and **Default** to revert back to original factory setting.

The screenshot shows the 'Alarm Setting' dialog box. It contains several sections:

- (1) Header:** Fields for 'No.' (1), 'Name' (Alarm1), and 'Description'.
- (2) Enable Time:** A 24-hour clock grid where blocks are selected to enable the alarm.
- (3) Conditions:** Radio buttons for 'Trigger if any' and 'Trigger if all'. Below are sections for Camera (Motion Detected, Video Loss, Missing or Suspicious Object/Scene Change, Audio Detected) and Sensor (High, Low).
- (4) Sensor:** A section for 'IP Camera Sensor' with a 'Continuous trigger duration' of 0 seconds and checkboxes for 'Abnormal Event', 'POS Keyword', 'Alarm Message', and 'Alarm Button'.
- (5) Alarm Reset:** A section for 'IP Camera Sensor' with an 'Alarm Reset Time' of 5 seconds.
- (6) Action:** A list of actions with checkboxes: Launch E-Map, TV Out, Enlarge Camera View, Relay Output, IP Camera Relay, Play Warning Sound, Make Phone Calls, Send E-Mail, File Transmission via FTP, Start Recording, SMS / MMS, PTZ preset point, Alarm SOP, Send to CMS, Launch program, and Snapshot.
- (7) Alarm Setting List:** A table on the right with columns 'No.', 'Name', and 'Description'. It contains two entries: '1 Alarm1' and '2 Alarm2'.

To set the Alarm Setting:

- Click **Add** to insert and set a new alarm setting. Click the items in the **(7) Alarm Setting List**, if you want to modify the alarm setting.
- In **(1) Alarm Setting number/Name/Description**, display the selected alarm setting number in the list below. Enter alarm name and description.
- In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated the color of the block turns white.
- In **(3) Conditions**, you can set “**Trigger if any**” to activate if it falls to one of the conditions or “**Trigger if all**” to activate if it falls to all conditions.
 - In Camera section, select and click on the camera number (01 to 16) in **Motion Detected** and **Video Loss** to set the condition for the system to alarm.
 - In **Missing and Suspicious Object Detected**, click the camera number (01 to 16) and select the certain object on the screen (right click on camera number for detailed setting)), and when the certain object is missing or doubtful, the system will alarm. In **Scene Change**, when the camera has been moved, the system will alarm, too.
 - In **Voice Detection**, click the camera number (01 to 16) to the system to alarm when detect the abnormal voice.
- In **(4) Sensor**, select and click on the sensor number (use ◀ and ▶ to select the sensor) to set the condition for the system to alarm. If the sensor normal status is high, set the sensor condition to low.
 - Enable/disable the **Abnormal Event** check box, to set the condition of the event for system to alarm.
 - System Reboot:** when the DVR system reboot without abnormal condition, the system

will send out the alarm message.

- **Abnormal Reboot:** when the DVR system reboot in irregular condition, the system will send out the alarm message.
- **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
- **Network is switched off:** when the network connection of DVR system is lost, the system will send out the alarm message.
- **Hard Disk failed:** when the hard disk can't work normally, the system will send out the alarm message.
- **Temperature:** set a temperature limited of system for system to alarm. When DVR system temperature is over the temperature limited, the DVR system will send out the alarm.
- **VGA Temperature:** set a VGA temperature limited for alarm. When VGA temperature is over the limited that user has set, the DVR system will send out the alarm.



Temperature setting doesn't support on NV3000T/5000 card.

- **Illegal Entry:** any objects move between selected regions which user has set up in **Object Counting** section, the system will send out the alarm. Select the entry (object moves from region 1 to 2 or from region 2 to 1) and camera for system alarm detection.

The image shows a screenshot of the 'Abnormal Event' configuration window. It contains several checkboxes for enabling different alarm events: System Reboot, Abnormal Reboot, Recording is switched off, Network is switched off, Hard Disk failed, Temperature, and VGA Temperature. The Temperature and VGA Temperature sections include input fields for a threshold value (both set to 60) and a unit dropdown menu (both set to C). Below these is the 'Illegal Entry' section, which has checkboxes for '1->2' and '2->1', each with a 'Detail' button. At the bottom, there is a 'FaceFinder' checkbox and a 'Camera' dropdown menu currently set to 'Camera 1'. 'OK' and 'Cancel' buttons are at the bottom right.

- Enable/disable the **POS Keyword** check box, to scan the data from the POS if it matches the keyword).
 - Enable/disable the **Alarm Message** check box, to active with external alarm message by your own program. For the detail configuration, please contact the local reseller.
6. In **(5) Alarm Reset**, click the camera number (use ◀ and ▶ to select the alarm) to set the reset condition of alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor normal status is high, set the sensor condition to low.
7. In **(6) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.
- **Launch E-Map**
Display mini Emap screen.
 - **TV Out**
Switch to only display the video on TV from where the alarm is activated.
 - **Enlarge Camera View**
Switch to only display video in Preview/Advanced mode from where the alarm is activated.

- **Send E-mail**
Send an electronic text message. To setup click **Detail** (see also [To Setup Send E-mail](#)).
- **File Transmission via FTP**
Upload file to remote computer thru FTP (File Transfer Protocol). To setup click **Detail** (see also [To Setup FTP](#)).
- **Start Recording**
Record the video from the selected camera. To setup click **Detail** (see also [To Setup Alarm Recording](#)).
- **Alarm SOP (Standard Operation Procedure)**
List the instructions to inform the person of what to do when the alarm is activated. To setup click **Detail** (see also [To Setup Alarm SOP](#)).
- **Send to CMS (Central Management System)**
Enable/disable the selected camera to send video to CMS when the alarm is activated (see also [To Setup CMS Setting](#))

To Setup Send E-mail Setting

Beside the Send Email check box, click **Detail**. In the E-mail Setting dialog box, click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



Gmail is supported now.

- **Mail Server**
Enter the SMTP Server and port. If your e-mail system requires user identification, enable **Authentication** check box and enter User ID and Password.
- **Mail**
To check if it is working, click **Test Account** button.
 - ✓ **From:** Enter the sender e-mail address.
 - ✓ **To and CC:** Enter the recipient email address and separate it with comma or a semicolon (;).
 - ✓ **Subject:** Enter the message title.
 - ✓ **Message:** Type the message.
- **Email Notice Setting**
 - ✓ **Notice Interval:** Set the period of time before it sends another e-mail notice.
 - ✓ **Embedded image:** Select the sending image's size and set the number of frames.
 - ✓ **Attach image when sensor is triggered:** When the sensor is triggered, the system will capture the image and send the image to the certain e-mail address with the alarm message.

E-Mail Setting

Mail Server
SMTP Server: [] : 25
☐ Authentication
ID: [] Password: []

Mail
From: []
To: []
CC: []
Subject: []
Message: []
[Test Account]

Email Notice Setting
Notice Interval: 5 Minute
Embedded image: 352x240 1 (frames)
Attach image when sensor is triggered: Camera 1

Modem Dial up Setting
☐ Auto Dial up
☒ Auto Disconnect after: 1 Minute

[OK] [Cancel]



If the alarm is not triggered by sensor, the system will depends on the setting of motion detected, video loss, audio detect, and sensor in alarm setting to send the alarm image and alarm message.

- Modem Dial up Setting

User may set the time to disconnect automatically, just enable the **Auto Disconnect after** check box and set time.

To Setup FTP Setting

1. Beside the File Transmission via FTP check box, click **Detail**.
2. In the FTP Setting dialog box, enter the FTP IP, port, user ID and password.
3. In **Number of Pic** text box, enter the number of sequence images that want to send when file is transmitting. The maximum number of picture can be transmitted are 16.
4. If user wants to send the recorded image before alarm occurs, enter the time that before alarm occurs in **Before alarm(sec.)**.
5. **Upload image:** User needs to select the camera that the images will be capture and send when the any alarm is triggered.
6. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

To Setup Alarm Recording Setting

1. Beside the Start Recording check box, click **Detail**.
2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting or **Max** to record the maximum of frames based on the available speed.
4. In the **Start Recording prior** text box, mark and set the number in second for the program to pre-recording before the alarm happen. The time range is 1~10 seconds.

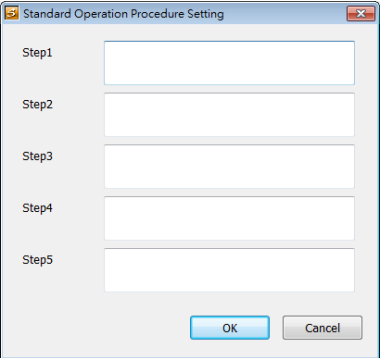


- When camera is Analog or IP camera and recording resolution less or equal to D1, the DVR system only record in key frame for pre-recording.
- When camera is Mega-pixel IP camera and the recording resolution is greater than D1, the DVR system won't do any pre-recording.

5. In the **Stop Recording after** text box, mark and set the number in second for the program to continue recording after the alarm has ended. The time range is 1~600 seconds. If user doesn't mark and set the time, the alarm recording will continue recording until alarm is reset.
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.

To Setup Alarm SOP

Beside the Alarm SOP check box, click **Detail**. In the step text boxes, type the standard protocol when the alarm is activated. When the alarm is activated, the Standard Operation Procedure dialog box will appear. Just click **Next** to see the next instruction, **Back** to see the previous instruction, **Finish** to end and **Abort** to terminate.



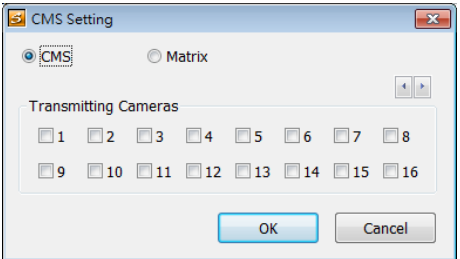
The 'Standard Operation Procedure Setting' dialog box contains five text input fields labeled Step1, Step2, Step3, Step4, and Step5. At the bottom right, there are two buttons: 'OK' and 'Cancel'.

To Setup CMS Setting

Beside the Send to CMS check box, click **Detail**. Click **OK** to accept the new settings and **Cancel** to exit without saving.

- **CMS:** Select the camera to enable/disable sending the video to CMS.

Matrix: Select the camera to enable/disable sending the alarm event video to CMS. The CMS site need to setup a matrix channel to receive the alarm event from DVR server site (please refer to CMS manual for detail)



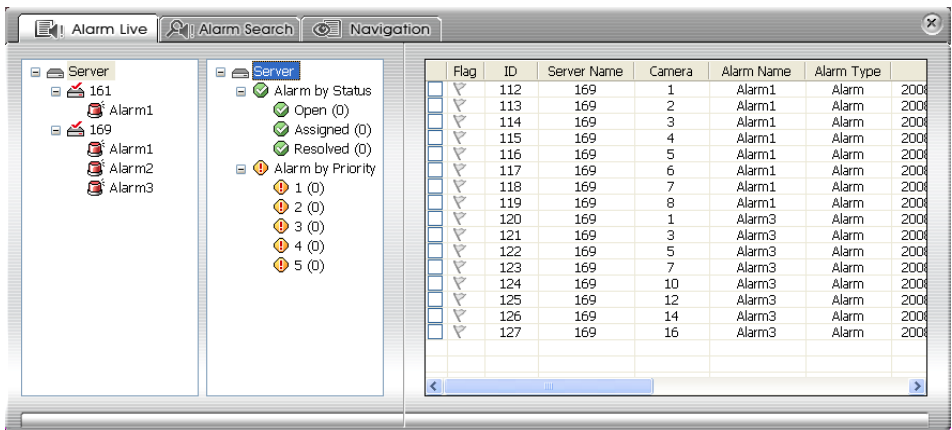
The 'CMS Setting' dialog box has two radio buttons: 'CMS' (selected) and 'Matrix'. Below them is a section titled 'Transmitting Cameras' with a grid of 16 checkboxes numbered 1 through 16. At the bottom right, there are two buttons: 'OK' and 'Cancel'.

3.5 Using the Alarm Center

User can manage live alarm event, searching the alarm event, and navigate relate parameters of monitored DVRs, cameras, and alarm filters.



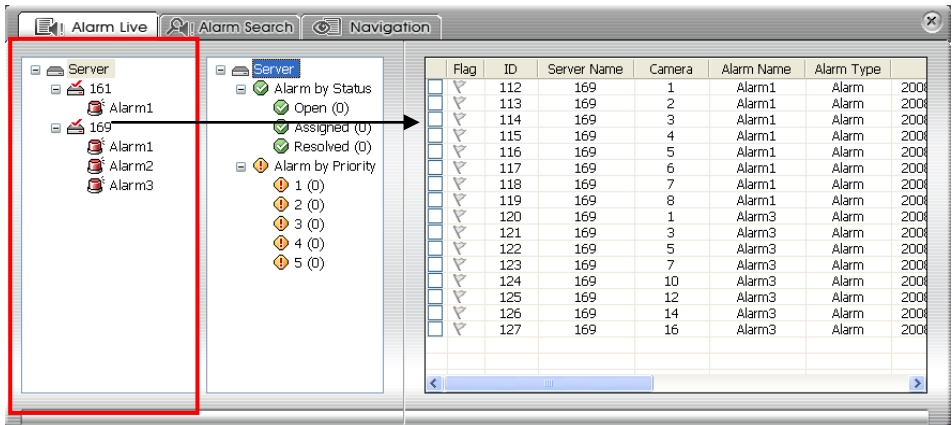
Only **CMS GOLD** version supports full functions of Alarm Center.



3.5.1 To Manage Live Alarm Event

User can select the alarm to assign to different operator, change the priority of alarm, and change status of alarm.

1. Click **Alarm Center**.
2. Select **Alarm Live** tab.
3. Select the DVR or expand the alarm tree and select the alarm from left column of Alarm Live window.



4. User should see all alarm events of selected the DVR or alarm.
5. To mark the alarm event, click check box.
6. Double-click on the alarm that user wants to manage. User should see the Alarm Information Setting window show up.

Alarm Information Setting

Server Name: Alarm Name: Alarm Type: Alarm Description:

Time: Priority: State: Operator:

Note:

7. Click **Edit Information** to edit the alarm.

Alarm Information Setting

Server Name: Alarm Name: Alarm Type: Alarm Description:

Time: Priority: State: Operator:

Note:

8. User can change **Priority**, **State**, and **Operator** of alarm. To enter the description or memo on **Note** column. And then, click **Save** to save the change.

Alarm Information Setting

Server Name: 169 Alarm Name: Alarm1 Alarm Type: Alarm Alarm Description: ALARM index=226

Time: 2008/12/16 10:55:36 Priority: 1 State: Open Operator: 1

Note:
2008/12/16 10:56:01 Update by 1

Buttons: Edit Run MiniCenter Cancel

9. To exit, click **Cancel**.
10. Click **Run MiniCenter** will call out Minicenter window(see also [Chapter 3.4](#))
11. User can view alarm events by status or priority. Select the status or priority of alarm event from the middle column of Alarm Live window and the result will be display on the right side column.



The priority of alarm event is set on remote DVR server. User is allowed to customize the priority of alarm event that CMS system has received and all re-assigned action will be recorded on CMS system.

Alarm Live Alarm Search Navigation

Server

- 161
 - Alarm1
- 169
 - Alarm1
 - Alarm2
 - Alarm3

Server

- Alarm by Status
 - Open (0)
 - Assigned (0)
 - Resolved (0)
- Alarm by Priority
 - 1 (0)
 - 2 (0)
 - 3 (0)
 - 4 (0)
 - 5 (0)

Flag	ID	Server Name	Camera	Alarm Name	Alarm Type	Year
	112	169	1	Alarm1	Alarm	2008
	113	169	2	Alarm1	Alarm	2008
	114	169	3	Alarm1	Alarm	2008
	115	169	4	Alarm1	Alarm	2008
	116	169	5	Alarm1	Alarm	2008
	117	169	6	Alarm1	Alarm	2008
	118	169	7	Alarm1	Alarm	2008
	119	169	8	Alarm1	Alarm	2008
	120	169	1	Alarm3	Alarm	2008
	121	169	3	Alarm3	Alarm	2008
	122	169	5	Alarm3	Alarm	2008
	123	169	7	Alarm3	Alarm	2008
	124	169	10	Alarm3	Alarm	2008
	125	169	12	Alarm3	Alarm	2008
	126	169	14	Alarm3	Alarm	2008
	127	169	16	Alarm3	Alarm	2008

12. To manage the alarm event, follow the above steps 6 to 10.

3.5.2 To Search the Alarm Event

User can search the alarm event by the conditions.



Alarm Search will be available when USB Dongle is installed (**CMS GOLD** version).

Flag	ID	Server Name	Camera	Alarm Name	Alarm Type
------	----	-------------	--------	------------	------------

Set the follow conditions to search the wanted alarm events.

- **Server Name:** select the DVR or select **All**.

Server Name: ---- Select ----
Alarm Name: N/A
Type: N/A
Priority: N/A

- **Alarm Name:** select the alarm that user wants to search for.

Alarm Name: Alarm1
Type: N/A
Priority: N/A
State: N/A

- **Type:** select the alarm condition (Motion, Alarm, DVR Exit, Login, Connection Loss, Connection Success, Video Loss, HD Failed, and Reset Alarm)that user wants to search for.

Type: Alarm
Priority: N/A
State: N/A
Operator: N/A
Keyword: N/A
After Time: 2008/12/16 00:00:00
Before Time: 2008/12/16 23:59:59

- **Priority:** select the priority level of alarm that user wants to search for.

Priority: N/A
State: N/A
Operator: N/A
Keyword: N/A
After Time: 2008/12/16 00:00:00

- **Status:** select the alarm status that wants to search

A screenshot of a search filter dropdown menu. The menu is open, showing options: N/A, N/A, Open (highlighted), Assigned, and Resolved. The background shows fields for State, Operator, Keyword, and After Time.

- **Operator:** select the operator that wants to search
- **Keyword:** enter the specific word string to search.
- **After/Before Time:** set a specific time period to search.

When the search conditions are set, click **Search** to start searching. If user doesn't set any conditions, the system still will start search when click **Search** button. And the, result will be all alarm events. The search result will display on the right column of Alarm Search window.

A screenshot of the 'Alarm Search' window. On the left, there are search filters: Server Name (---- Select ----), Alarm Name (N/A), Type (N/A), Priority (N/A), State (N/A), Operator (N/A), Keyword (empty), After Time (2008/12/16 00:00:00), and Before Time (2008/12/16 23:59:59). Below these are buttons for Search, Save, Export .txt, Image Log, Print, and Export .xls. On the right, a table displays search results, highlighted with a red border. The table has columns: Flag, ID, Server Name, Camera, Alarm Name, and Alarm Type. It lists 18 entries with IDs 1 through 18, all from Server 169. The first two entries are 'Connectio...' and the rest are 'Alarm1' or 'Alarm3'.



Flag	ID	Server Name	Camera	Alarm Name	Alarm Type
✓	1	169	1	Connectio...	2
✓	2	169	1	Connectio...	2
✓	3	169	1	Alarm1	Alarm
✓	4	169	2	Alarm1	Alarm
✓	5	169	3	Alarm1	Alarm
✓	6	169	4	Alarm1	Alarm
✓	7	169	5	Alarm1	Alarm
✓	8	169	6	Alarm1	Alarm
✓	9	169	7	Alarm1	Alarm
✓	10	169	8	Alarm1	Alarm
✓	11	169	1	Alarm3	Alarm
✓	12	169	3	Alarm3	Alarm
✓	13	169	5	Alarm3	Alarm
✓	14	169	7	Alarm3	Alarm
✓	15	169	10	Alarm3	Alarm
✓	16	169	12	Alarm3	Alarm
✓	17	169	14	Alarm3	Alarm
✓	18	169	16	Alarm3	Alarm

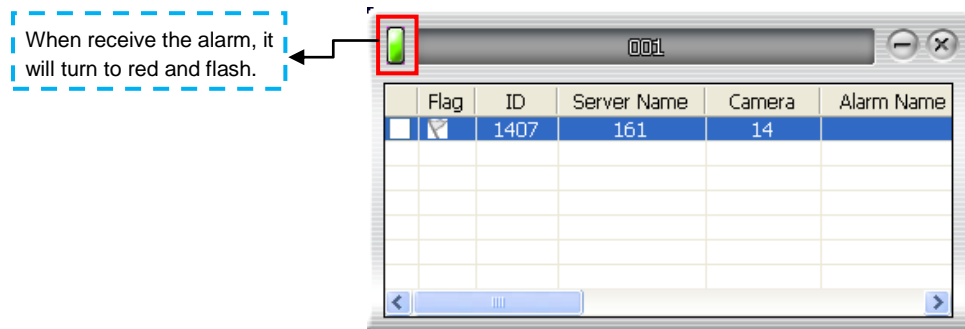
User can select the alarm to assign to different operator, change the priority of alarm, and change status of alarm (see also [Chapter 3.5.1](#)).

User can create a filter that is based on the conditions of search. Click **Save**, the **Filter Window Setting** will show up. Enter a name for the filter and click **OK**.

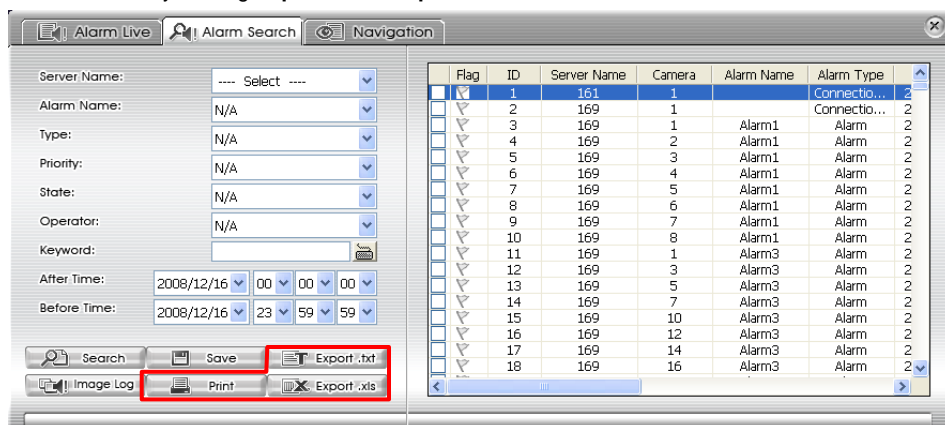
 User also can create a filter in **Navigation** section(see also [Chapter 3.5.3](#))

A screenshot of the 'Filter Window Setting' dialog box. It has a blue title bar with a close button. Inside, there are four input fields: Filter Name (empty), Server Name (---- Select ----), Alarm Name (N/A), and Priority (N/A). At the bottom, there is a keyboard icon, an OK button, and a Cancel button.

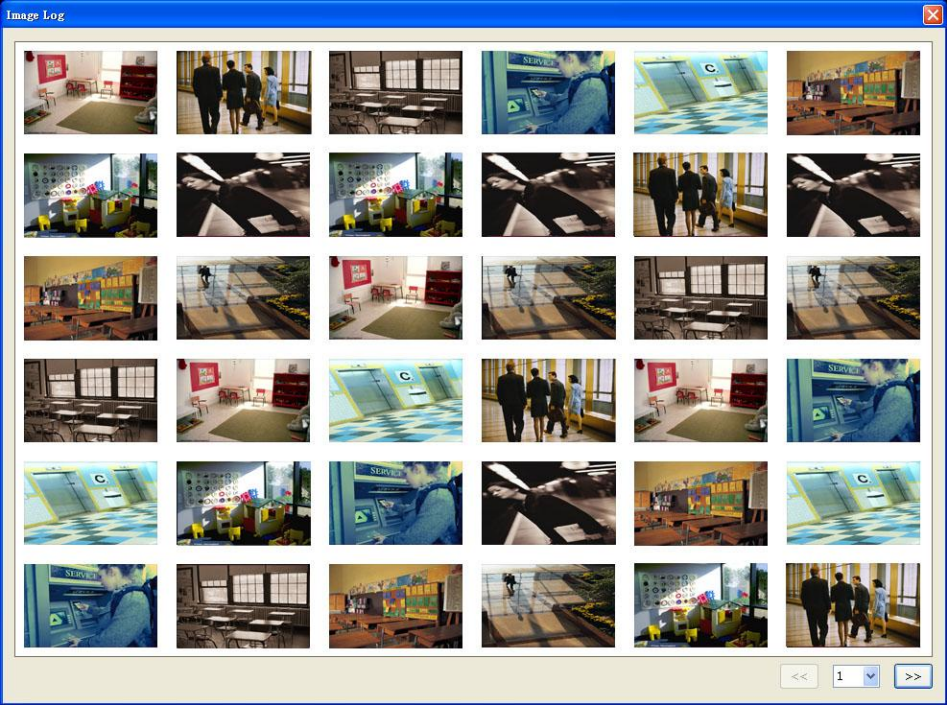
When CMS system receives same alarm event, filter will flash in red light. To minimize the filter click , click  to close the filter.



The result of search can be print by clicking **Print** button. Also, the search result can be save as in *.txt and *.xls format by clicking **Export .txt** or **Export .xls** button.



Clicking **Image Log** button to view alarm image. The image log window will show up. Double-click on the image log will call out the MiniCenter window (see also [Chapter 3.4](#)). Click << and >> to go previous and next page.



3.5.3 To Navigate the Alarm Information

User can view information of DVR, alarm, filter, and user.

i Navigation function will be available when USB Dongle is installed (**CMS GOLD** version).

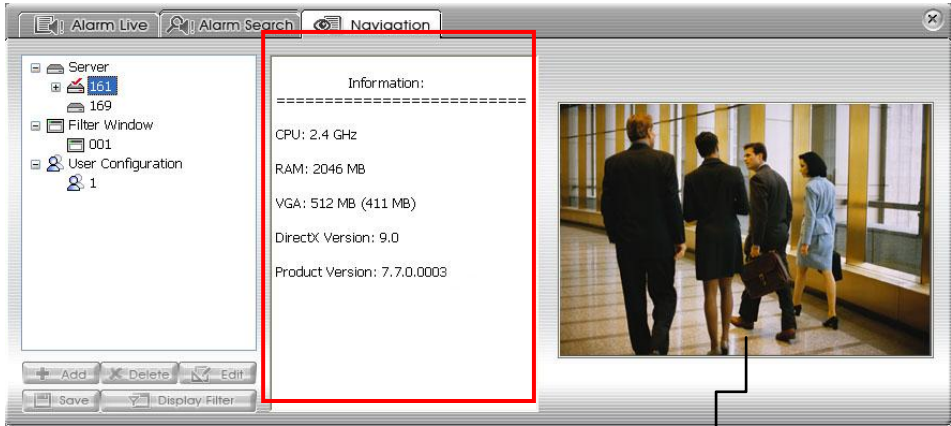


Image of the selected alarm

■ Viewing the DVR Information

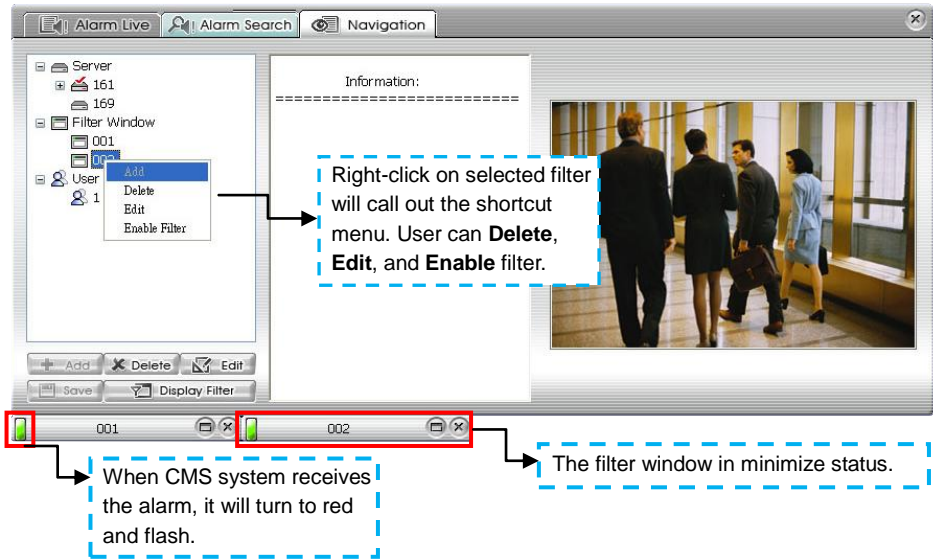
Select the DVR, alarm, filter or user to view. The information will be display on middle column and the image of alarm will display on right side column.

■ To Create and Manage the Filters

The filter window display the current existing filter, user can add more filter by clicking **Add**. In Filter Window Setting, enter the name of filter; select the DVR, alarm, and priority of alarm.

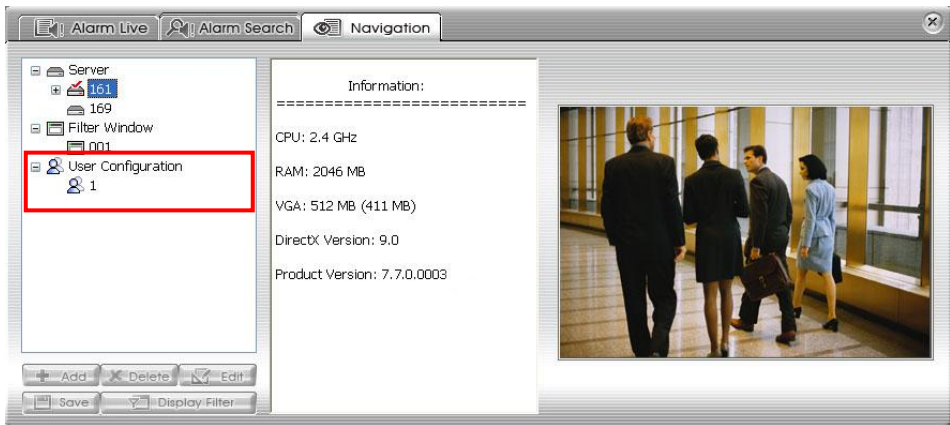
Click to call out
virtual keyboard if
the keyboard is not
available.

To delete the filter, select the filter and click **Delete**. To modify the filter, click **Edit**. Select the filter and click **Display filter** can call out the filter to view if the filter is close.




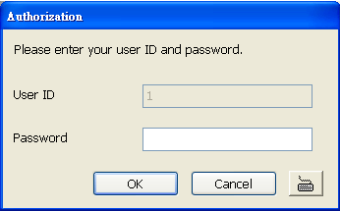
■ Viewing the User Account

In User Configuration section, user can view who is current on line.



Chapter 4 Customizing the CMS System

In the CMS application, click the  button to customize the CMS system. In the Authorization dialog box, enter the administrator User ID and Password.



The Authorization dialog box has a blue title bar with the text "Authorization". Below the title bar, it says "Please enter your user ID and password." There are two input fields: "User ID" with the value "1" and "Password" which is empty. At the bottom, there are three buttons: "OK", "Cancel", and a printer icon.

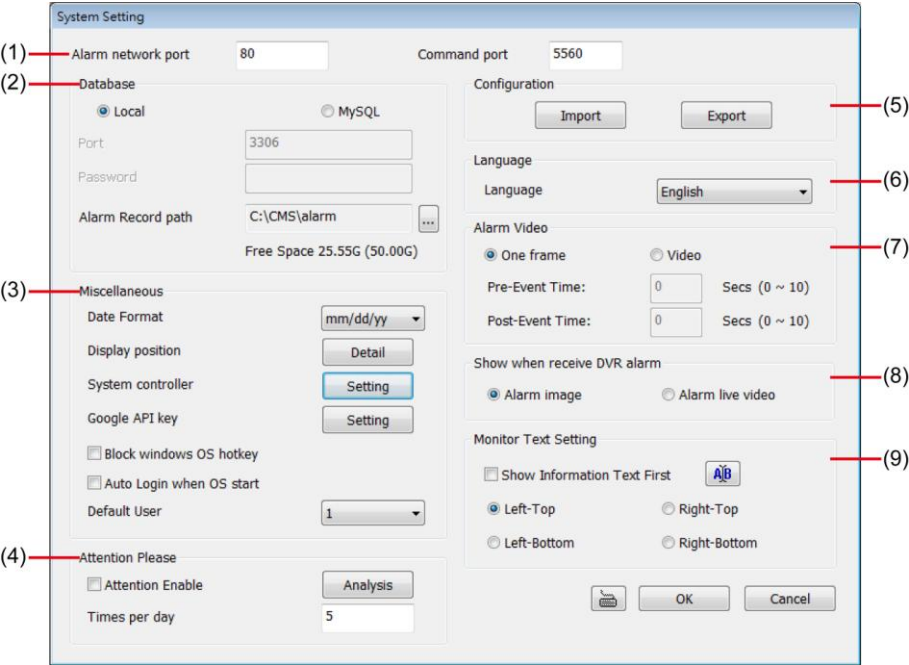
When the CMS configuration setup selection appears, select and click the buttons you want to change the setting.



The CMS configuration setup selection dialog box has a grid of eight buttons: "System", "DVR", "Camera", "Schedule", "Backup", "E-Map", "Alarm", and "User". Below the grid is a large "OK" button.

4.1 System Setting

In the System Setting dialog box, click **OK** to accept and start to reload the new setting, and **Cancel** to exit without saving.



The System Setting dialog box is divided into several sections. On the left, there are sections for "Alarm network port" (80), "Database" (Local selected, Port 3306, Password, Alarm Record path C:\CMS\alarm, Free Space 25.55G (50.00G)), "Miscellaneous" (Date Format mm/dd/yy, Display position Detail, System controller Setting, Google API key Setting, Block windows OS hotkey, Auto Login when OS start, Default User 1), and "Attention Please" (Attention Enable, Times per day 5, Analysis). On the right, there are sections for "Configuration" (Import, Export), "Language" (English), "Alarm Video" (One frame selected, Pre-Event Time 0 Secs (0 ~ 10), Post-Event Time 0 Secs (0 ~ 10)), "Show when receive DVR alarm" (Alarm image selected, Alarm live video), and "Monitor Text Setting" (Show Information Text First, Left-Top selected, Right-Top, Left-Bottom, Right-Bottom). At the bottom right are buttons for "OK" and "Cancel".

(1) Alarm Network Port

Select a port for receiving alarm video from DVR server. Any network service port can be

assigned as long as the port doesn't conflict with current network service.

(2) Database


- **Local:** The default setting.
- **MySQL:** If CMS server is sending the received alarm to the Remite iAlarm agent, please select **MySQL** as the database. Please enter the communication **Port** of MySQL server and the login **Password**.



If CMS system is going to transmit the received alarm to Remote iAlarm center, please must select the **MySQL** as the database.

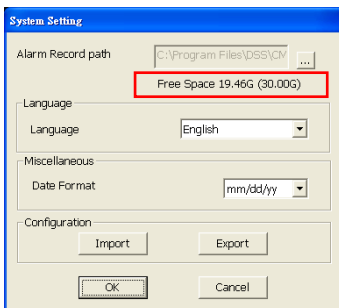
➤ Alarm Record Path

By default, the alarm folder is automatically generated to where the CMS application is installed and for saving the alarm clip videos and log files. The suggested hard disk capacity for storing the alarm video is 30GB.

1. Click **Setup**.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **System** > . In the Browse For Folder dialog box, locate where you want to store the alarm video clip. Click **Make New Folder** to create new folder, **OK** to accept and **Cancel** to exit.



4. The text below the Alarm Record path text box shows the hard disk free space and total space in parenthesis.

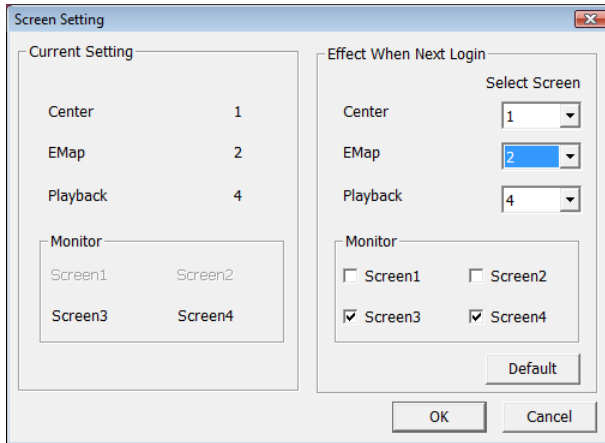


5. In the System Setting dialog box, click **OK** to start reloading the new setting and **Cancel** to exit without saving the new setting.

(3) Miscellaneous

- **Date Format :** Select from different date formats
 1. Click **Setup**.
 2. In the Authorization dialog box, enter the administrator User ID and Password.
 3. Click **System**.
 4. In the Date Format drop down list, click and select the style.
 5. In the System Setting dialog box, click **OK** to accept the new setting and **Cancel** to exit without saving the new setting.
- **Display position:** CMS system supports up to 4 monitors, users are allowed to customize

the display position that to decide the Center, Emap, Monitor, or Playback to be displayed on which monitor screen. Click **Detail** to select the display screen setting. The new screen display setting will be effect at next time login.

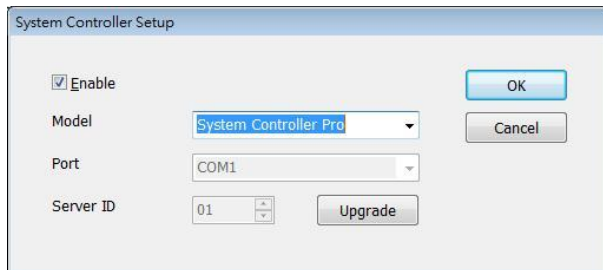


- **System Controller** – To configure the parameters that is for communicating with the System Controller (an optional accessory). Also please refer to [Chapter 4.1.1](#) or *user manual of the System Controller*. Click **Setting** to configure system controller.

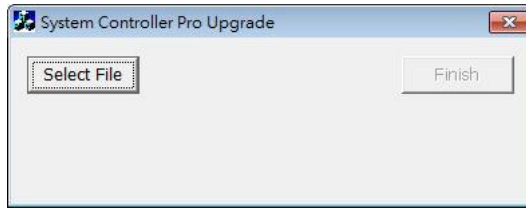


The **Model** of System Controller must match on the System Controller site.

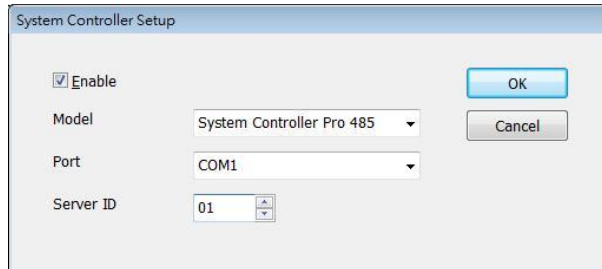
- **USB Connection:** CMS can connect with System Controller through the USB port. Follow the below description to enable the connection between CMS server and System Controller.



- ✓ **Enable** – Mark the check box to enable the System Controller function.
- ✓ **Model** – Select **System Controller Pro** as the **Model**.
- ✓ **Upgrade** – To update the firmware of the System Controller. Click **Upgrade** button and click **Select File** button. And then, select the firmware file and click **OK**. The upgrade process will start. The upgrade firmware may have more than one file. Therefore, click **OK** and locate the firmware file to upgrade another file. When the upgrade process is done, click **Finish** to complete.



- **RS485 Connection:** Connecting CMS with System Controller through RS485 port on the System Controller. Follow the below description to enable the connection between CMS server and System Controller.



- ✓ **Enable** – Mark the check box to enable the System Controller function.
 - ✓ **Model** – Select **System Controller Pro 485** as the **Model**.
 - ✓ **Port** – Select the com port that is connected with the System Controller.
 - ✓ **Server ID** – Set an ID for CMS server (0~99). This ID is a CMS server ID for System Controller to select.
- **Google API Key:** Enter the Google API Key that applied from Google web site (see also [Chapter 4.1.2](#)). Click **Detail** and enter API key that will allow user to use **Google map** as a E-Map image(see also [Chapter 4.6.1.1](#)).

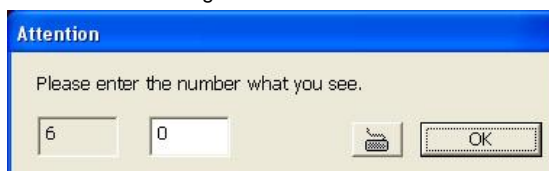


The Google map function only supported in CM3000 **Gold** version.

- **Block Windows OS hotkey:** Deactivate the **[Ctrl-Alt-Del]** and **[Windows]** keyboard key functions.
- **Auto Login when OS start:** Execute the CMS when the operating system is started.

(4) Attention Please

Check the attentiveness of the person who is monitoring the system. You may set the number of times the Attention dialog box to appear in a day in **Times per day** text box. To check the graph on how fast the person response, click **Analysis**. When this feature is enabled, the **Attention** dialog box would appear. The person who is monitoring the system must enter the same number that appears from the left box at the right text box and then click **OK**.



(5) Configuration

Import / Export the CMS system configuration.

(6) Language

Customize the system to display the tool tips and dialogs based on the selected language. By default the set language is in English.

1. Click **Setup**.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **System**.
4. In the Language drop down list, click and select the language.

(7) Alarm Video

Set up the video transition when alarm occurs.

- **One frame**: a single video frame will be transmitted when alarm occurs.
- **Pre/Post Event Time**: Set the video duration before and after the event to send

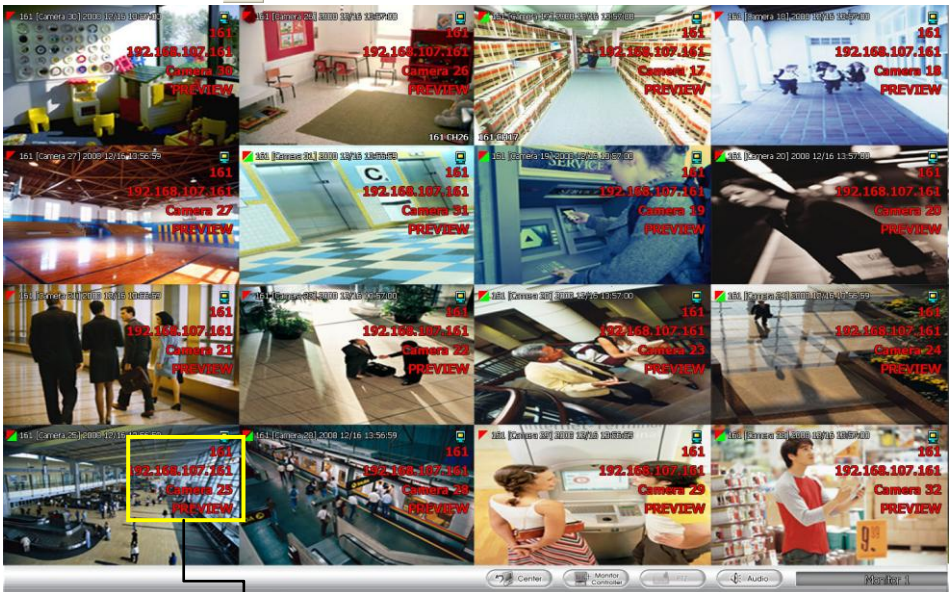
(8) Show when receive DVR alarm

Select the type of received alarm format – **Alarm image** or **Alarm Live Video**.

- **Alarm image**: Only display alarm image and no live video previewing.
- **Alarm Live Video**: User can view alarm live video.

(9) Monitor Text Setting

Enable/disable the camera information display and display position on the monitor screen. To configure font, click **A/B**.



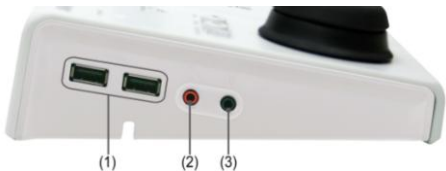
- The camera information will be display as user has configured.
- User can press **F1** to disable/enable camera information display.

4.1.1 Using the System Controller

The AVer™ System Controller Pro provides user an easy way to operate CMS server.

4.1.1.1 Hardware Introduction

Left Side



Function	Description
(1) USB Port	2 * USB ports for connection of keyboard, mouse, or USB flash memory.
(2) Audio Input	For audio input device connection such as microphone.
(3) Audio Output	For audio output device connection such as speaker.



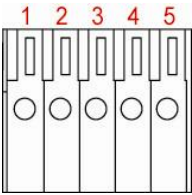
- The audio input and output device has its own power supply is necessary.
- The audio input and output port act as the audio input and output port on the DVR system.

Rear Side



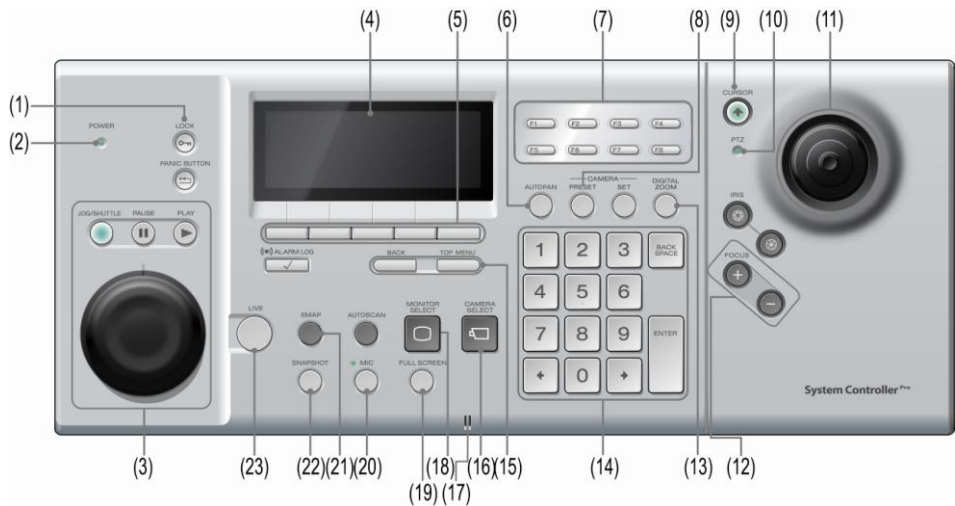
Function	Description
(1) RS485 Port	To connect with CMS server, user needs a RS485 to RS232 converter (see also Connecting the DVR Server through the RS485 port).









1	TX+
2	TX-
3	RX+
4	RX-
5	GND

















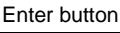















(2) Power Supply Port	For AC power adaptor connection.
-----------------------	----------------------------------

Familiarizing with System Controller Panel Buttons



Function	Description	
(1)  (Lock)	To lock panel buttons and all operations are lock. Press it to lock and press again to un-lock. If the system password has been set, please enter the password to un-lock (see also 4.1.19 Locking System Operation)	
(2)  (Power)	Lights up when unit is power on.	
(3) Playback Control Buttons		Press it to enable/disable the jog/shuttle function. When button lights up is enabling.
	 (Pause)	To pause the playback.
	 (Play)	To switch to playback mode and start playback.
		<ul style="list-style-type: none">- Jog dial (top part): Playback video frame-by-frame that control by user.- Shuttle ring (lower part): Playback video at faster forward or rewind speed that control by user.
	 The Jog/Shuttle doesn't support on Realtime Playback mode.	
(4) LCD Screen	To operate the each function in multi-functions menu and view system related information.	
(5) Multi-function Buttons	Each button represents a function that is corresponding to the function display on the LCD screen. Press the button and operate it.	
AUTOPAN		
(6) 	Enable/disable the PTZ camera move automatically that is based on the selected camera group preset position number.	

Function	Description	
(7) Custom Function Buttons		To view system information.
		Back to the CMS center interface.
		Call out the virtual keyboard.
		The F3 function doesn't support on Windows 7 64-bit system platform.
		Switch to monitor mode.
		Call out the Mini Center.
		Enable/disable network connection. Press it to connect the network and press again to disconnect the network. The authentication password is required for stop network connection. Using numeric key pad to enter the password and press Enter button to confirm.
		To enter system setup mode. The authentication password is required to enter system setup mode. Using numeric key pad to enter the password and press Enter button to confirm.
(8) Preset Button		Call out Logout dialog.
		Move the PTZ camera to the selected preset position.
(9)		Enable/disable joystick as a mouse function.
PTZ		
(10)		When lights up in green, user can use PTZ related operation.
(11) Joystick	To control PTZ camera to left, right, up, down, zoom in, and zoom out.	
	Press Cursor button to act as mouse function	
(12) Focus Button		To adjust the focus of the PTZ camera.
DIGITAL ZOOM		
(13)		Enable/disable digital zoom.
(14) Numeric Key Pad	 ~ 	For numbers entering
		For confirmation
		To delete the entered number
	 & 	In LCD screen, moving the cursor to left or right.

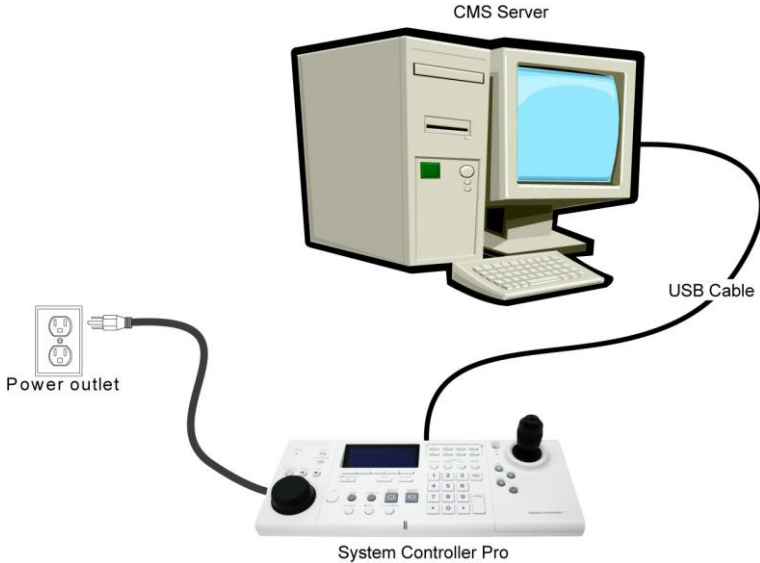
Function	Description	
(15) Back /Top Menu Button	<div>BACK</div> 	Go back to previous LCD screen.
	<div>TOP MENU</div> 	<ul style="list-style-type: none">- Go back to the main menu screen.- Exit from playback mode.
(16)  (Camera Select)	Using to select the camera channel in Monitor mode or Watch mode.	
(17) Microphone	<div>Build-in microphone for 2-way talk in Mini Center but user needs to press  button to enable the microphone function before using.</div>	
(18)  (Monitor Select)	Select a CMS server in 485 CMS mode (see also To Select a CMS server ID in 485 CMS mode).	
	FULL SCREEN	
(19) 	Switch to full screen mode in playback mode.	
	MIC	
(20) 	Press to enable built-in microphone function in Mini Center.	
	EMAP	
(21) 	Switch to Emap mode (see also EMap Mode Operation section).	
	SNAPSHOT	
(22) 	Take a quick screen shot of the surveillance screen and save it in playback mode.	
	LIVE	
(23) 	Switch to Center mode.	

4.1.1.2 Installation of System Controller

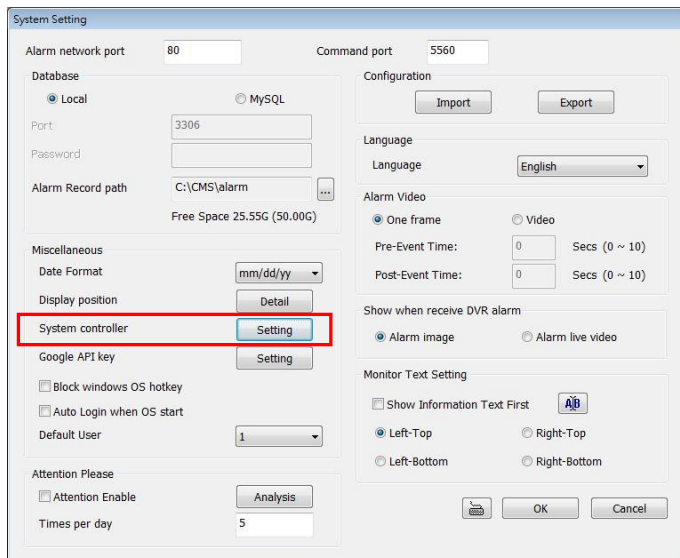
Connecting the CMS Server through the USB port

The following is an example of System controller installation.

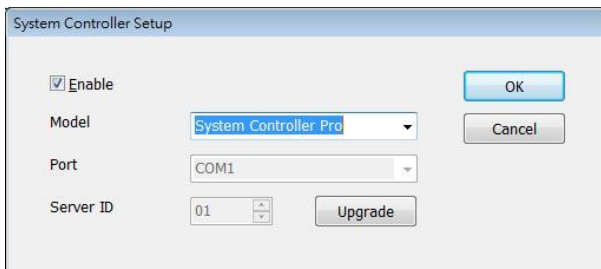
1. The CMS server should be power on and CMS program is executed.
2. Plug the power cord of the System Controller into power outlet.
3. And then, plug the USB cable that is attached on the System Controller to the USB port of the CMS server.



4. After CMS server and System Controller have well connected, user needs to do the configuration for CMS server and System Controller to recognize each other. Please follow the below steps to configure the CMS server and System Controller.
 - **CMS Server site**
 - a. Click **Setup** button on CMS program UI and select **System**.
 - b. In System setting window, click **Setting** button of the System Controller.

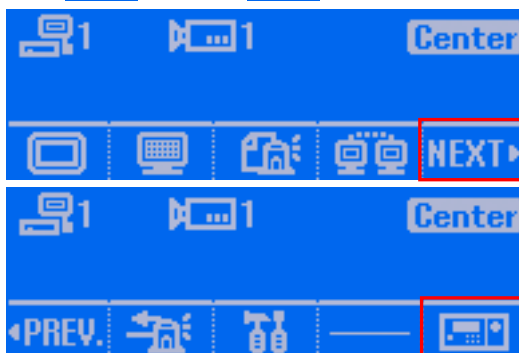


- c. In System Controller Setting window, Mark **Enable** check box to enable the System Controller function. And then, select the **System Controller Pro** as the **Model** from drop-down list. Click **OK** to complete the setting.

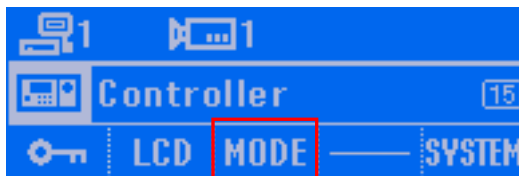


■ System Controller site

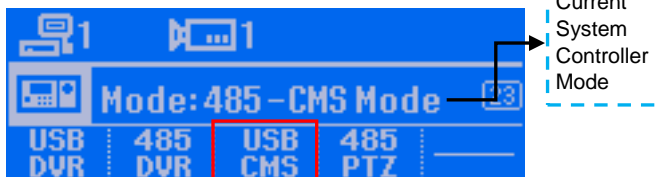
- a. In main menu, press **NEXT** and select **(system controller setting)**.



- b. In System Controller setting screen, select **MODE**.



- c. In Mode screen, select the **USB CMS**. If the current mode is USB-CMS mode already, then the **USB CMS** selection will not show in selection list.



- d. Press **OK** button to confirm. To cancel the selection, press **CANCEL** button. When the **"Complete"** message appears on the LCD screen, the mode switch is completed.



5. After complete the mode setting in CMS server and System Controller, the System Controller is ready to operate CMS server.

Connecting the CMS Server through the RS485 port

Through the RS485 port, user can connect a CMS server with the System Controller.
Before starting to make a connection, please prepare the following items:



RS232 cable



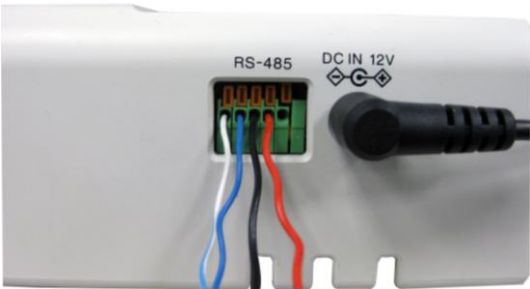
RS232 to RS485 Converter



Single core wire

(*User can purchase from the dealer
** The RS232 to RS485 Converter needs
to support **RS-485 automatic data
direction control protocol**)

- 1. Using the screwdriver to press down the orange tenon and insert the single core wire cable into the pin hole of the I/O terminal on the System Controller. When the wire cable is inserted in the end of the pin hole, release the orange tenon to fix the wire cable.

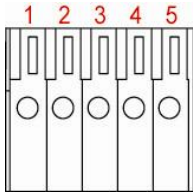


- 2. Set the DIP switch of the RS232 to RS485 converter at 4-wire RS485 setting.

Using 4-wire RS485 for connection

Adjust the switch to the right position

- Using the screwdriver to lose the pin hole of RS485 to RS232 converter. And then, insert another side of single core wire into the pin hole of the RS485 to RS232 converter. Using the screwdriver to screw tight the wire. Please refer to the below table for pin-hole matching:



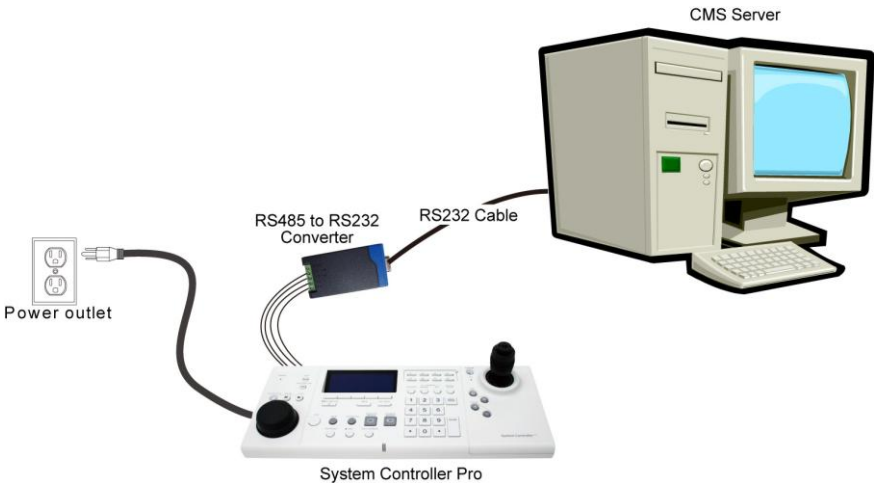
RS485 pin hole of System Controller

RS485 to RS232 Converter site		System Controller site	
R+	T+		1
R-	T-		2
T+	R+		3
T-	R-		4

- Connect the RS232 cable to the RS232 port of the converter.



- Connect another side of RS232 cable to the RS232 port of the CMS server.
- Power on the System Controller.
- The following figure is an example of the installation illustrate.




8. After CMS server and System Controller have well connected, user needs to do the configuration for CMS server and System Controller to recognize each other. Please follow the below steps to configure the CMS server and System Controller.

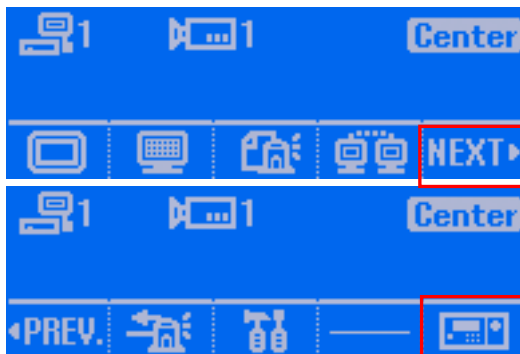
■ **CMS Server site**

- a. Click **Setup** button on CMS program UI and select **System**.
- b. In System setting window, click **Setting** button of the System Controller.

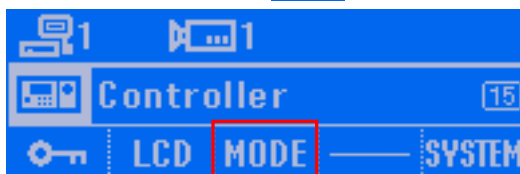
- c. In System Controller Setting window, Mark **Enable** check box to enable the System Controller functions. And then, select the **System Controller Pro 485** as the **Model** from drop-down list and select the **Port** that use to connect with System Controller. Finally, set an **ID** for CMS server that is allowing System Controller to match to the CMS server. Click **OK** to complete the setting.

■ **System Controller site**

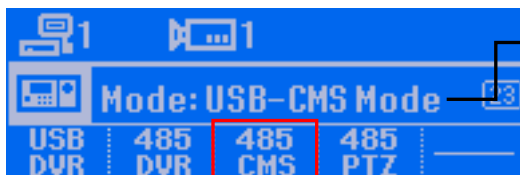
1. In main menu, press **NEXT** and select  (system controller setting).



2. In System Controller setting screen, select **MODE**.




3. In Mode screen, select the **485 CMS**. If the current mode is 485-CMS mode already, then the **485 CMS** selection will not show in selection list.



4. Press **OK** button to confirm. To cancel the selection, press **CANCEL** button. When the “**Complete**” message appears on the LCD screen, the mode switch is completed.



5. After mode setting has complete, user need to enter the ID of CMS server in order to operate the CMS system.
6. Press  button on System Controller panel. The LCD screen panel will display the CMS ID select screen as following shown:



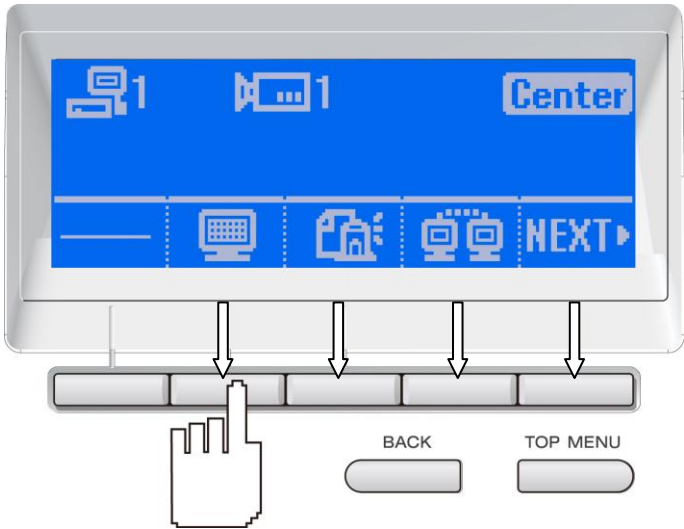
7. Using the number keys on the System Controller panel to enter the DVR server ID that user wants to control. And then, press the **Enter** button.
8. Now, the System Controller has switched the control to the CMS server that user has selected.



4.1.1.3 **Operating the LCD Menu**

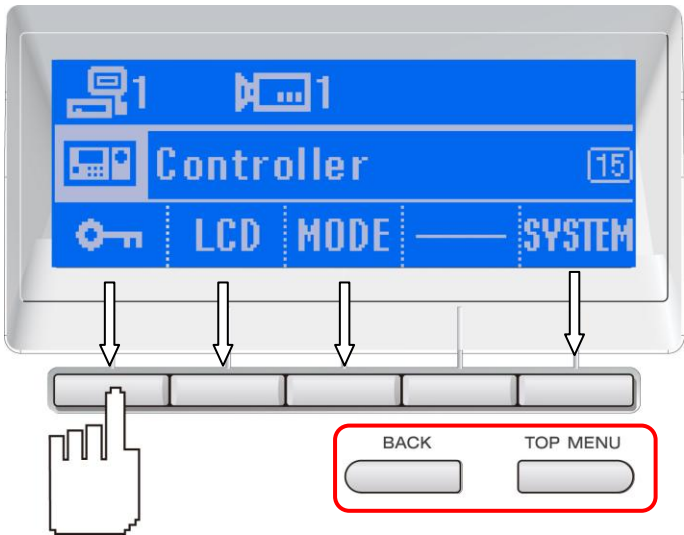
■ **Main Menu**

On the LCD screen, each function is corresponding to the button on the panel of the System Controller Pro. To select the function, press the correspond button.



■ **Multi-Function Menu**

In multi-function menu screen, press the correspond button of the selections to configure/operate.

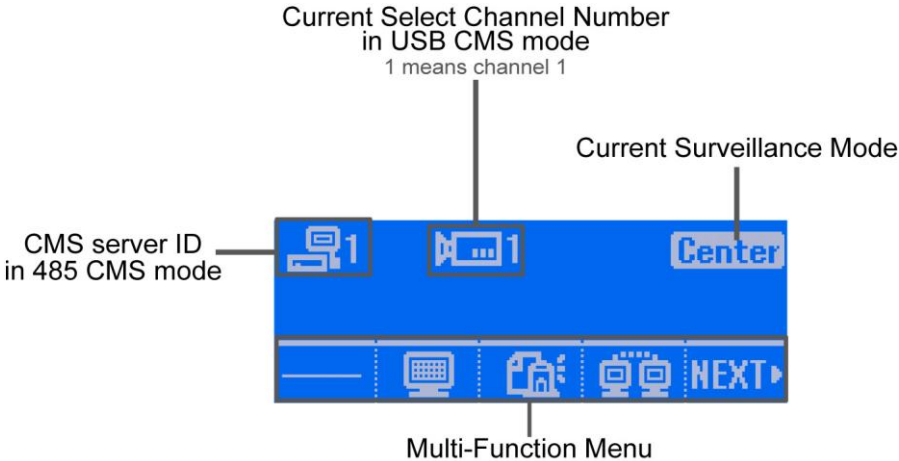


To go back to the main menu, press the **TOP MENU** button. Press the **BACK** button will go back to the previous screen.

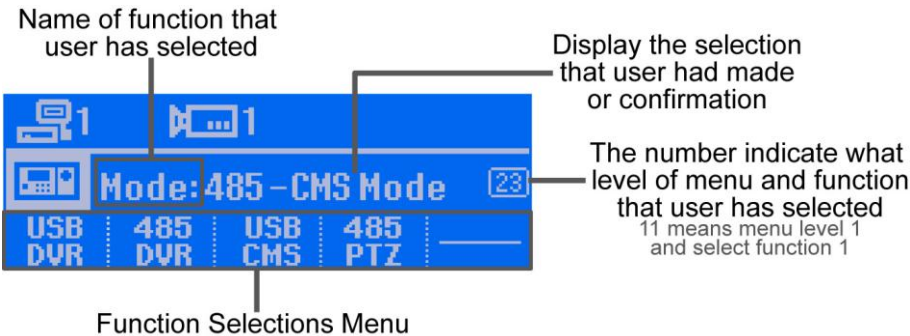
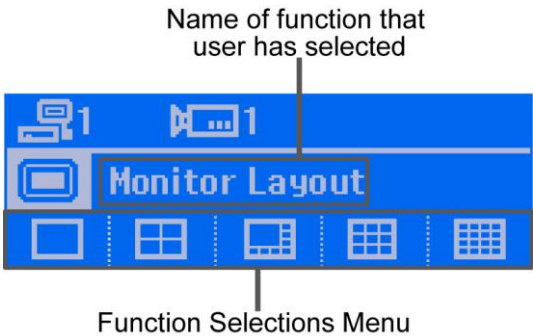
4.1.1.4 Familiarizing with LCD Screen

Following will describe the information or icon that display on LCD screen.

■ Main Menu





■ Submenu(Multi-function menu)

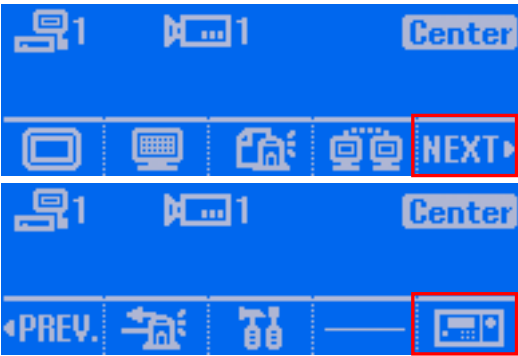


4.1.1.5 Switching to USB CMS Mode

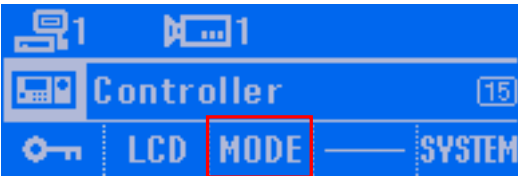
When the System Controller is connecting with CMS server through the USB port, the System Controller mode should be in **USB CMS** mode in order to operate the CMS system. If the mode is not USB CMS, please follow the below steps to switch to USB CMS mode.



- 
- The default mode is USB CMS mode
 - The 485 PTZ mode is not supported for CMS system.
 - Please remember to setup the System Controller model as **System Controller Pro** in CMS system.

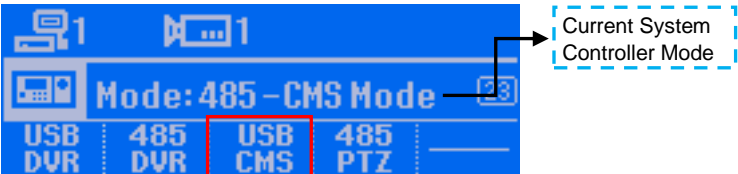
1. In main menu, press **NEXT** and select  (system controller setting).



2. In System Controller setting screen, select **MODE**.



3. In Mode screen, select the . If the current mode is USB-CMS mode already, then the  selection will not show in selection list.



4. Press **OK** button to confirm. To cancel the selection, press **CANCEL** button. When the “**Complete**” message appears on the LCD screen, the mode switch is completed.




4.1.1.6 Switching to 485 CMS Mode

When the System Controller is connecting with CMS server through the 485 port, the System Controller mode should be in **485 CMS** modes in order to operate the CMS system. If the mode is not 485 CMS mode, please follow the below steps to switch to 485 CMS mode.

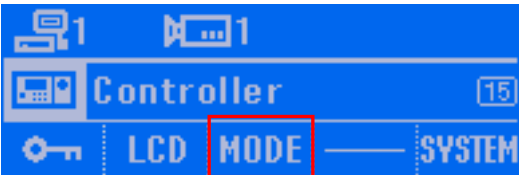


- The default mode is USB CMS mode
- The 485 PTZ mode is not supported for CMS server.
- Please remember to setup the System Controller model as **System Controller Pro 485** in CMS system.

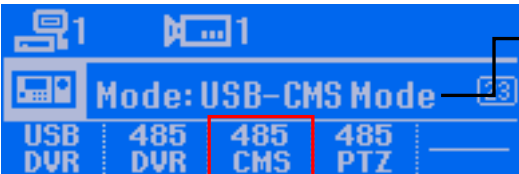
1. In main menu, press **NEXT** and select  (system controller setting).



2. In System Controller setting screen, select **MODE**.



3. In Mode screen, select the **485 CMS**. If the current mode is 485-CMS mode already, then the **485 CMS** selection will not show in selection list.



Current System
Controller Mode

4. Press **OK** button to confirm. To cancel the selection, press **CANCEL** button. When the “**Complete**” message appears on the LCD screen, the mode switch is completed.




4.1.1.7 To Select an CMS server ID in 485 CMS mode

When System Controller connect with CMS servers through the RS485 port, user needs to select the CMS server by ID number that user has setup on CMS system.

To make sure the control mode, please press  button and select **MODE**. User should see the current mode show as **"Mode: 485-CMS Mode"**.

To Select an CMS server:

- 1. Press  button on System Controller panel.
- 2. The LCD screen panel will display the CMS server ID select screen as following shown:



- 3. Using the number keys on the System Controller panel to enter the CMS server ID that user wants to control. And then, press the **Enter** button.
- 4. Now, the System Controller has switched the control to the ID 1 CMS server.



4.1.1.8 Upgrading the Firmware of the System Controller

User can upgrade the newest firmware of the System Controller. For newest firmware, please contact your local dealer.

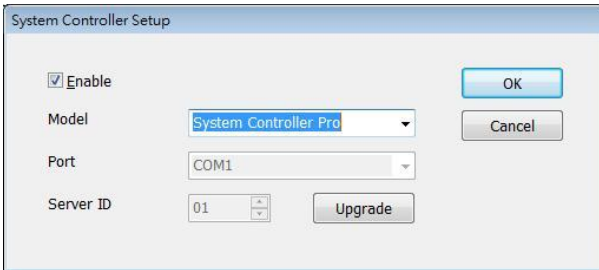


- The upgrade process only support when System Controller connects to CMS server through the USB port.
- To check firmware version of the System Controller, please refer to [Viewing System Version Information](#) section.

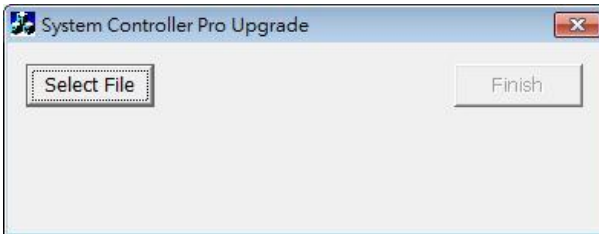
■ For firmware version 0.14

If System Controller firmware version is 0.14 or older version, please follow the below steps to upgrade the new firmware.

1. In System Controller, please switch the *Mode* to **USB DVR** mode.
2. In CMS program UI, click **Setup > System > Detail** of System Controller. Please make sure the model is **System Controller Pro**.
3. Click **Upgrade** button.



4. Click **Select File** button to locate the firmware.

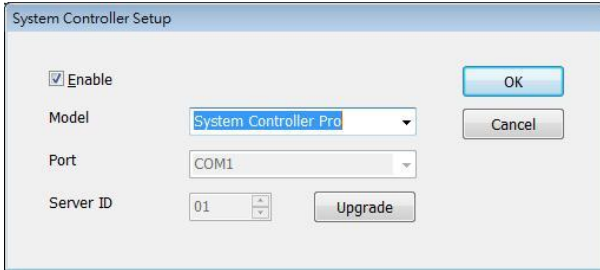


5. Select the firmware file and click **OK**. The upgrade process will start.
6. The upgrade firmware may have more than one file. Therefore, click **OK** and locate the firmware file to upgrade another file.
7. When the upgrade process is done, click **Finish** to complete.
8. After upgrade the firmware, please switch the mode of System Controller to **USB CMS** mode.

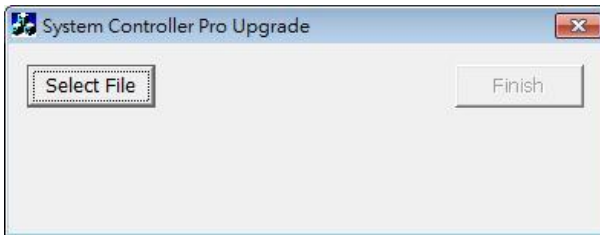
■ **For firmware version 0.52**

If System Controller firmware version is 0.52, please follow the below steps to upgrade the new firmware.

1. In System Controller, please make sure the *Mode* is **USB CMS** mode.
2. In CMS program UI, click **Setup > System > Detail** of System Controller. Please make sure the model is **System Controller Pro**.
3. Click **Upgrade** button.




4. Click **Select File** button to locate the firmware.




5. Select the firmware file and click **OK**. The upgrade process will start.
6. The upgrade firmware may have more than one file. Therefore, click **OK** and locate the firmware file to upgrade another file.
7. When the upgrade process is done, click **Finish** to complete.


4.1.1.9 Locking System Operation

Using the lock button () to lock the System Controller for preventing any unexpected situation happen during the operator or administer is away from the System Controller.

We strongly recommend that enable the password function to enhance the security (see also [Set a Password for System Controller](#)).

1. Press  button. The LCD screen will display “System Controller Locked” message.



2. To un-lock, press  again and using numeric key pad to enter the password. And then, press **Enter** button to un-lock.

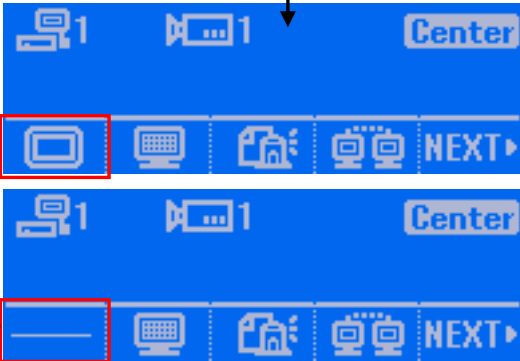
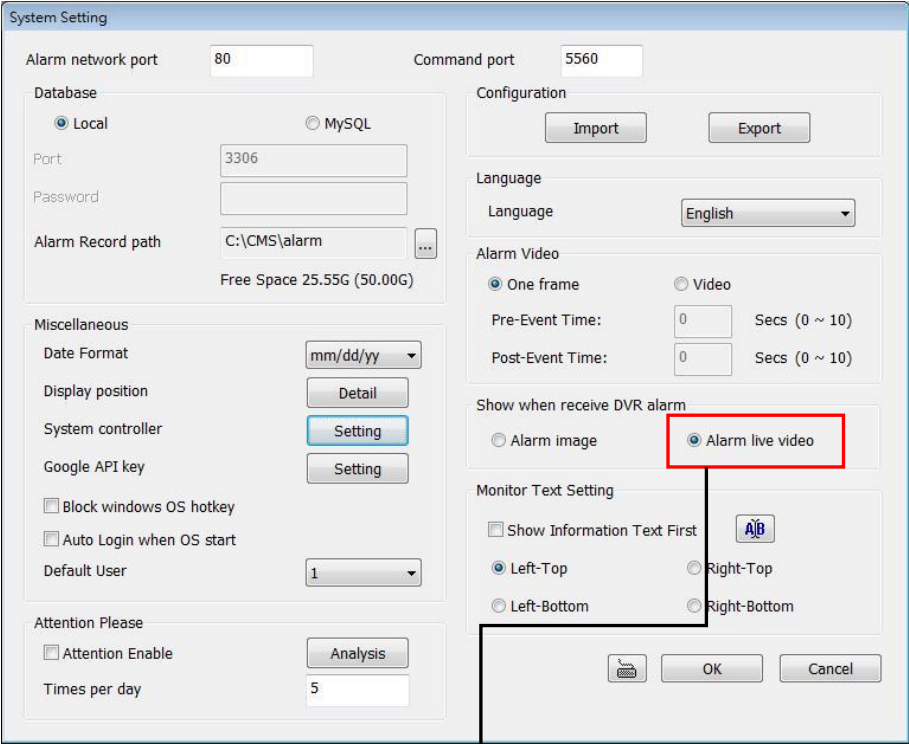


4.1.1.10 Center Mode Operation

The follow sections will describe the functions in Center mode.

Select an Monitor Layout

User can select the monitor layout to view in Center mode. Only when alarm image is live, the Monitor Layout function will be available. If the alarm image is not a live image, the Monitor Layout selection won't be shown.



The Monitor Layout function is not available when the alarm image is not a live image.


- 1. In Center mode, press  button to enter the Monitor Layout mode.



2. In Center Layout mode, the screen display options are 1, 6, 12, 24, and 48 in width monitor screen. In 4:3 monitor screen, the Center Layout options are 1, 4, 9, 16, 25, and 36. This function is same as split-screen buttons on Center UI of CMS system.

Select an Monitor

The CMS system can connect 4 monitors and user can select the monitor to operate.

1. In LCD main screen, press .



2. On the LCD screen will display **Monitor Screen** select screen.



3. Press the monitor (, , , ) to make a selection. The LCD screen will display Monitor operate screen. User can operate the selected monitor screen.




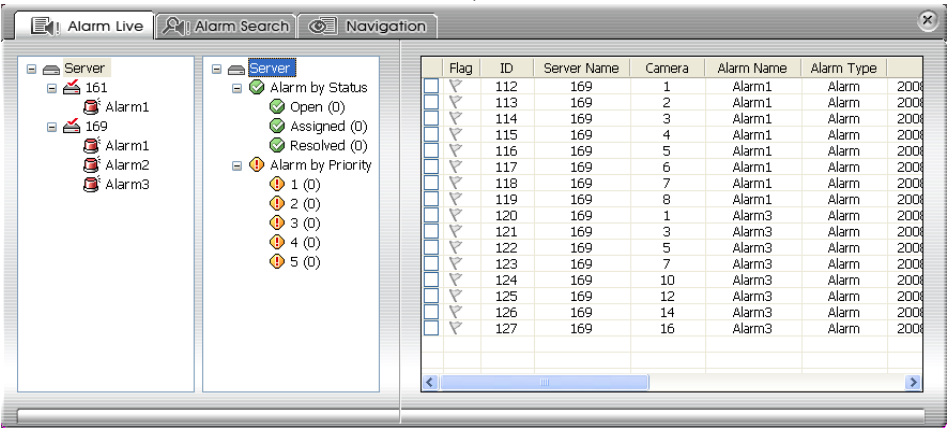
The monitor number icon (, , , ) will show up only when the monitor has connected to CMS server.



4. To operate in Monitor mode, please refer to [Monitor Mode Operation](#) section.

Call out the Alarm Center

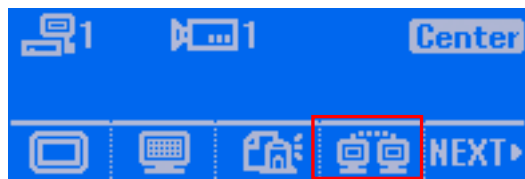
In Center Mode, press  button will call out Alarm Center. How to operate the Alarm Center, please refer to [Chapter 3.5](#).




Alarm Center UI

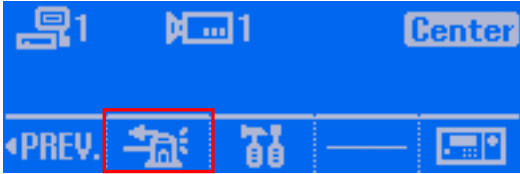
Call Out the Mini Center

In Center Mode, press  button will call out Mini Center. How to operate the Mini Center, please refer to [Chapter 3.4](#).






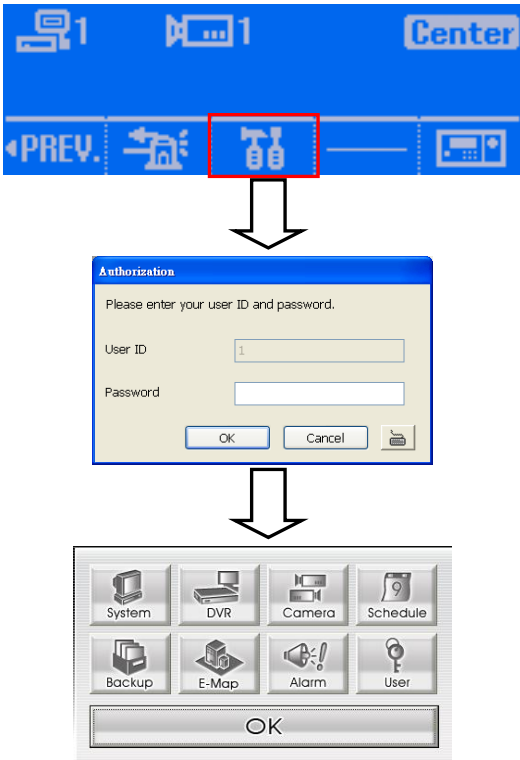
Reset the Alarm

In Center Mode, press **NEXT** and select  to reset alarms.



Call Out the System Configuration Selection

In Center Mode, press **NEXT** and select  to call out the Setup bar. The authorization dialog will show up and enter password. The configuration set selection will appear and user can click the configuration selection to configure. The  is same as the  button on Center UI of the CMS system.



Controller Setup

In Center Mode, press **NEXT▶** and select  to enter Controller setup mode.





In Controller setup, user can configure the parameters of the System Controller Pro.



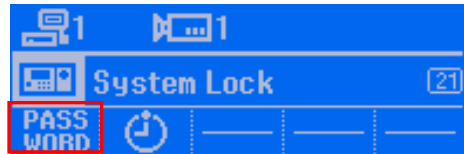
■ **Set a Password for System Controller**

To setup the password of System Controller for security issue.

1. At main menu screen, press the **NEXT▶** and press  button to enter **Controller setup** screen.
2. Press  button to enter System Lock screen.



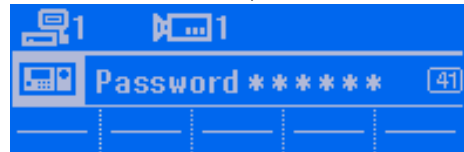
3. Press **PASS WORD** button to enter the Password setup screen.



4. Press **ON/OFF** button to enable password function.
5. The password enter screen will appear. Using numeric key pad to enter the password (6 numbers). After entered password, press **Enter** button.



6. When user sees the “**Complete**” message, it means the operation is done.



■ Change the Password of the System Controller



The password function will be enabling after password changed.

1. At main menu screen, press the **NEXT** button and press the button to enter **Controller setup** screen.



2. Press button to enter System Lock screen.



3. Press **PASS WORD** button to enter the Password setup screen.



4. Press **CHANGE** button and the Password Change screen will appear.
5. Using numeric key pad to enter the current password (6 numbers). After entered password, press **Enter** button.




6. After entered the current password, the new password screen will appear.
7. Using numeric key pad to enter the new password (6 numbers) and press **Enter** to confirm.
8. When user sees the “**Complete**” message, it means the operation is done.




■ Set the Timer


Set a period time for System Controller idling over the setup time to switch to rest status.

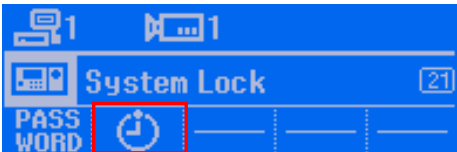
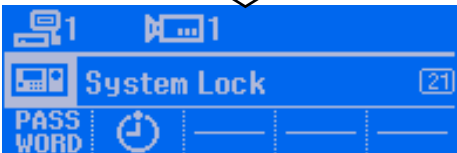
1. At main menu screen, press the **NEXT▶** and press the  button to enter **Controller setup** screen.



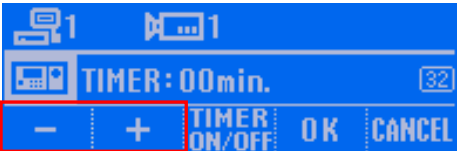
2. Press  button to enter System Lock screen.



3. Press  button to enter the Timer setup screen.



4. Press **TIMER ON/OFF** button to enable the timer. Press again will disable the timer.
5. Press **+** and **-** button to adjust the time.
6. Press **OK** button to confirm the setting. To cancel, press **CANCEL** button.



■ **Adjusting the Brightness of LCD Screen**


To adjust the back light brightness of the LCD screen.

1. At main menu screen, press the **NEXT▶** and press the  button to enter **Controller setup** screen.




2. Press **LCD** button to enter LCD setup screen.

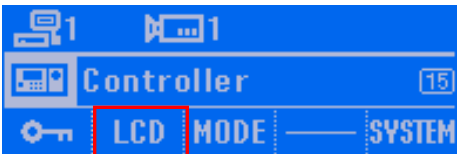


3. Press  button to enter the Back light brightness setup screen.
4. Press **+** and **-** button to adjust the brightness.
5. Press **OK** button to confirm the setting.
To cancel, press **CANCEL** button.



■ **Adjusting the Contrast of LCD Screen**

1. At main menu screen, press the **NEXT▶** and press the  button to enter **Controller setup** screen.
2. Press **LCD** button to enter LCD setup screen.
3. Press  button to enter the Contrast setup screen.
4. Press **+** and **-** button to adjust the brightness.
5. Press **OK** button to confirm the setting.
To cancel, press **CANCEL** button.



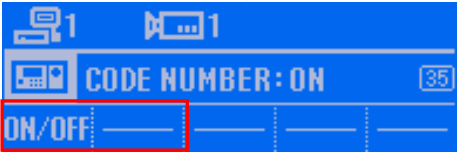
■ **Enable/disable Code Number Display**

1. At main menu screen, press the **NEXT▶** and press the  button to enter **Controller setup** screen.

2. Press **LCD** button to enter LCD setup screen.


3. Press **CODE NUMBER** button to enter the Code number setup screen.

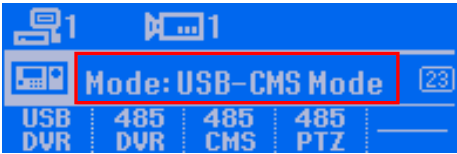
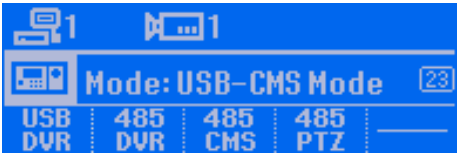
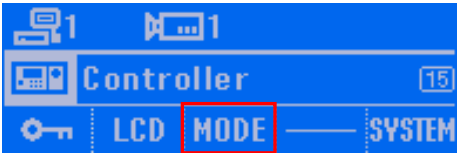
4. Press **ON/OFF** button to enable the code number display. Press **ON/OFF** button again will disable the code number display.




■ **Mode Switching**

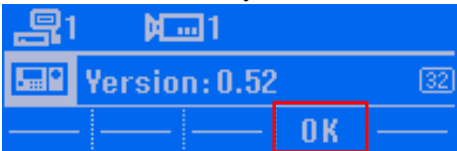
In Mode screen, user can select mode that depends on the connecting type(USB or RS485) with CMD server.

- 1. At main menu screen, press the **NEXT** and press the  button to enter **Controller setup** screen.
- 2. Press **MODE** button to enter Mode setup screen.
- 3. The current mode will display in the middle of LCD screen.
- 4. Press the mode that user wants and press **OK** button to confirm.
- 5. For more detail, please refer to [Switching to USB CMS Mode](#) and [Switching to 485 CMS Mode](#) section.



■ Viewing System Version Information


1. At main menu screen, press the **NEXT▶** and press the  button to enter **Controller setup** screen.
2. Press **SYSTEM** button to enter System Menu screen.
3. Press **Ver.** button to view current system version. Press **OK** button exit from the screen.



4.1.1.11 Playback Mode Operation

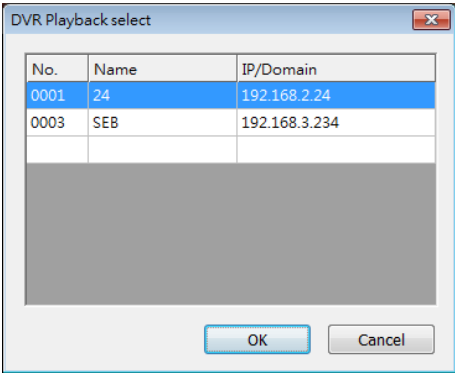
In playback mode, user can playback real-time recorded file from monitored DVR servers, download from monitored DVR servers and playback, and playback recorded file that has saved on local hard disk.

Follow the below steps to playback:

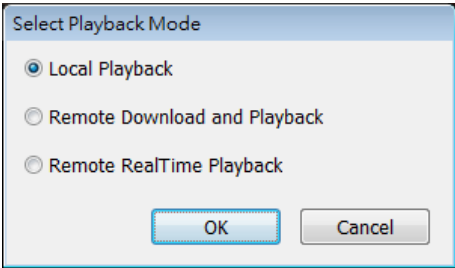
- 1. Press  button to switch to playback mode. The LCD screen will switch to the playback mode.



- 2. And, the DVR selection dialog will show up on surveillance screen. Select the DVR server and click **OK**. User can use mouse or joystick to select. Press the button on top of joystick to confirm the selection.



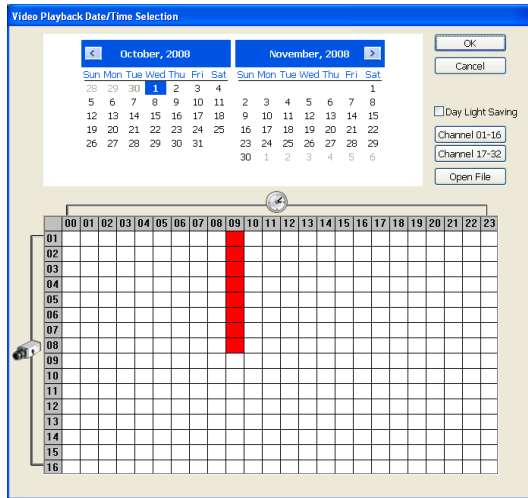
- 3. After selected the DVR server, the playback mode selection dialog will show up on surveillance screen. Select the playback mode that user wants and click **OK**.



- 4. The playback time and date selection window will appear on the surveillance screen. To select the date and time, user can use mouse or joystick. Moving joystick to up and down for date selecting. Moving joystick to left and right for hour selecting. To confirm the selection, press the button on the top of joystick.



The date and time selection dialog will be a little different due to the model of DVR server and the playback mode that user has selected.






5. After selected the time and date to playback, the CMS system will start to playback.



The playback UI will be a little different due to the model of DVR server and the playback mode that user has selected.



6. Using the Jog/Shuttle button to control the playback speed. Press  make sure is play status, and then, press  to enable the Jog/Shuttle button. To disable the Jog/Shuttle button, press  button again.

- **Jog dial (top part):** Rotate in clockwise is forward play frame-by-frame that control by user. Rotate in counterclockwise is rewinding play frame-by-frame that control by user.



The Shuttle ring (lower part) position needs to be back at center to allow Jog dial to be functional.

- **Shuttle ring (lower part):** Rotate in clockwise is play at increase speed of 1x, 2x, 4x, 8x, 16x, and 32x. Rotate in counterclockwise is rewinding playback.

7. To pause the play, press button. Press again to start playback.



The button and Jog/Shuttle button doesn't support in Realtime playback mode.

FULL SCREEN

8. While playback, user can press button to switch to full screen mode.

SNAPSHOT

9. Press button can capture screen image and save it.

LIVE

10. To exit playback mode, press button.

Select the Screen Layout

In Playback Layout mode, user can select different screen display mode to view. This function is same as split-screen buttons () on Playback UI.

There are 6 types of monitor layout -- .

1. In playback mode LCD screen, press button.



2. The LCD screen will switch to playback layout mode. For more split screen layout, press button to go to next screen page.



3. Press the button of screen layout that user wants to view.



4. The surveillance screen will switch the screen layout that user has selected.

Enable/disable De-interlace

In playback mode, user can enable/disable de-interlace function. This function is same the de-interlace button on Playback UI.



3. In Playback mode LCD screen, press  button to enter the De-interlace mode.




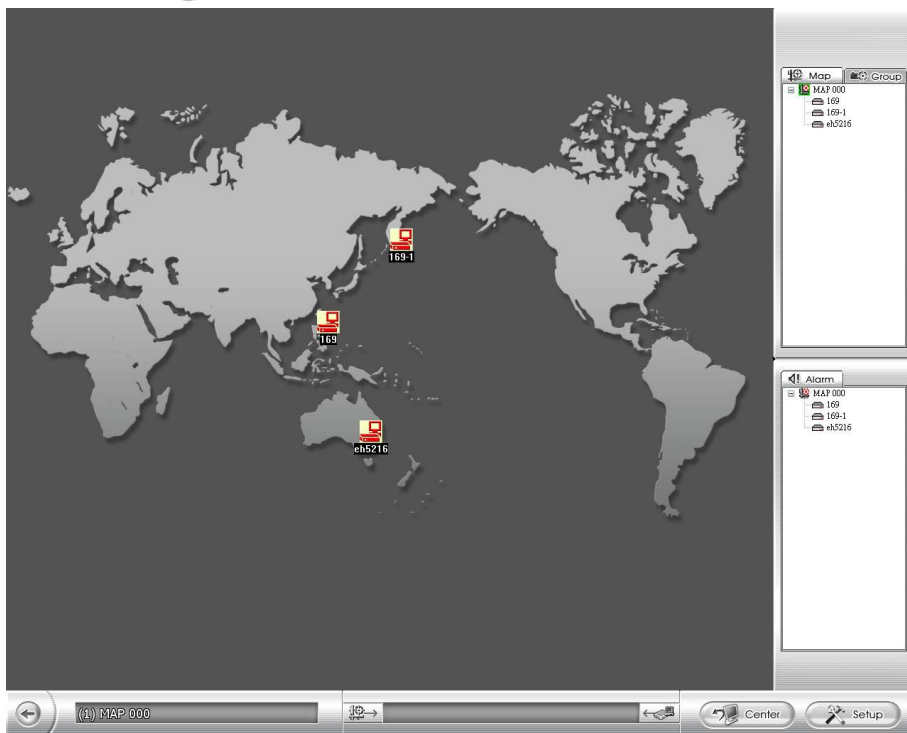
4. In De-interlace mode screen, select the de-interlace mode **1** or **2**. To disable the de-interlace, select **OFF**.



4.1.1.12 EMap Mode Operation

EMAP

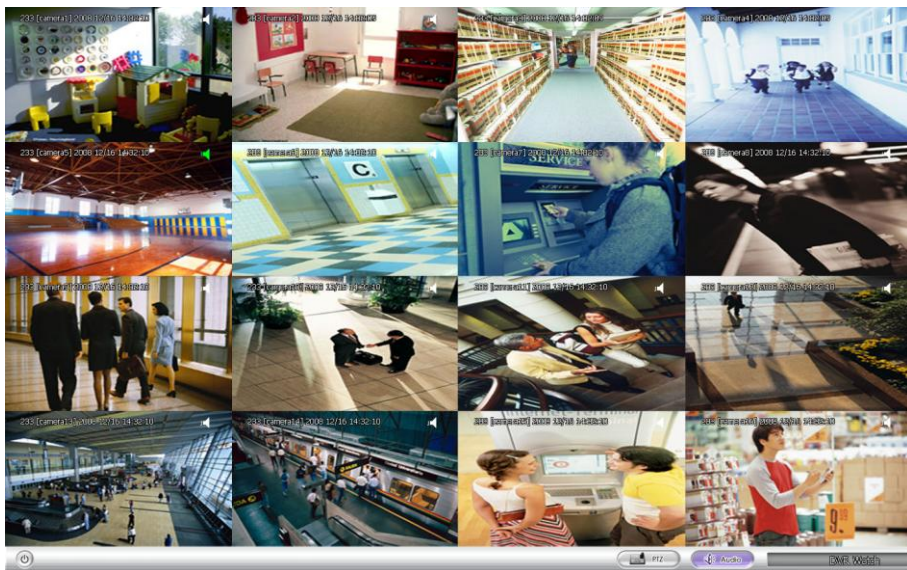
1. Press Emap () button and the Emap UI will appear on surveillance screen.



2. And the LCD screen will switch to EMap mode.



3. Move the joystick to select the DVR icon to view. The DVR icon turn into red frame means the joystick has move to the DVR icon right now. Press top button of the joystick to confirm the selection. The monitor screen will switch to DVR Watch mode.



- The LCD screen will display Watch mode.





- To close the Emap UI, press  button will switch back to CMS program UI.

Select Monitor Layout in Watch Mode

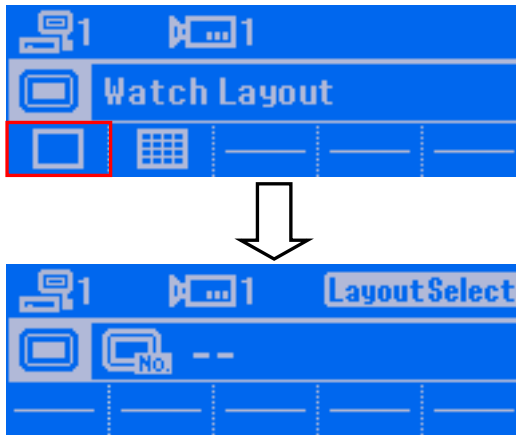
In Watch mode, user can select to view a single channel by channel or split screen mode.

EMAP

- Press  call out EMap UI. And then, select the DVR server to call out DVR Watch program on EMap UI.
- In LCD screen, press  button to enter Watch Layout mode.




- In Watch Layout mode, user press  button. And then, enter the camera number that user wants to view and press **Enter** button on System Controller. The monitor screen will switch to the channel that user has entered.



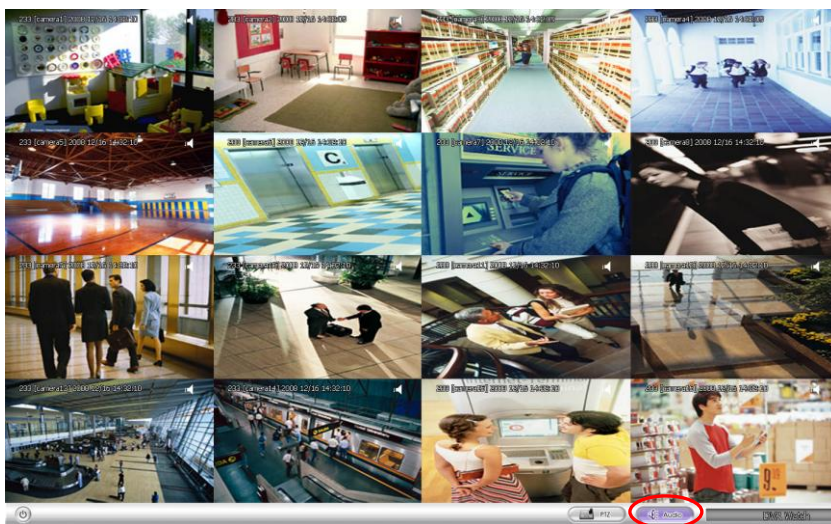
In Watch mode, press CAMERA SELECT button on System Controller, also can enter Layout Select mode.




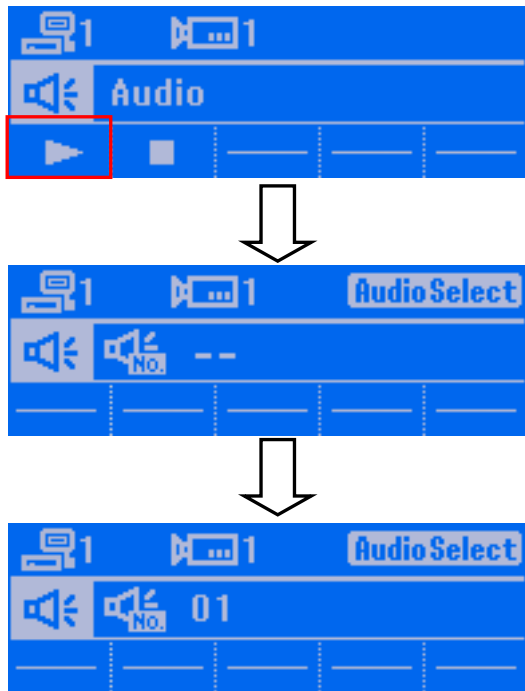
4. To switch back to split screen mode, press  button.

Enable/disable audio play in Watch mode. Only one channel at time allows playing audio sound.

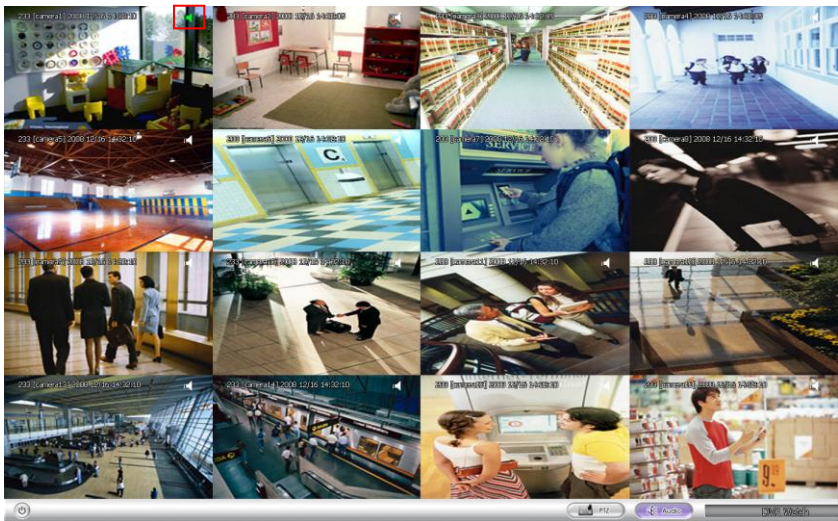
- 




- To enable audio play, press  button and enter the channel number that wants to enable audio play and press **Enter** button on System Controller.



- The select channel will be play sound and the audio icon will turn green.





- To back to previous LCD screen, press **Back** button on System Controller.
- To change the channel to play audio sound, repeat the above step 2 & 3.
- To disable the audio sound playing, press  button in Audio Mode.


PTZ Operation in Watch Mode

If the camera has enabled the PTZ function, user can use the System Controller to operate the PTZ camera in Watch mode.


Select an PTZ Channel:

- 1. Before starting PTZ operation, please select the channel first. Press  button and enter the PTZ channel.
- 2. User also can press  button to enter Watch Layout mode.



- 3. In Watch Layout mode, user press  button. And then, enter the PTZ channel number and press **Enter** button on System Controller. The monitor screen will switch to the channel that user has entered.



When PTZ indicator () is green light up, the PTZ operation is available.

Using the Joystick to Operate the PTZ Camera:

The joystick can move the camera to right, left, up, and down and also to zoom in and out of the camera.

■ Panning

Move the joystick to right or left.



■ Tilt

Move the joystick to up or down.





■ Zoom in/out

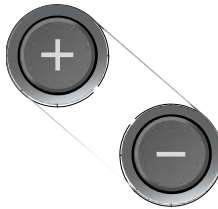
Rotate the joystick to the clockwise side to zoom in and counterclockwise to zoom out.




To Focus the Object:


Press  button to focus the object in the distance. Press  button to focus the object in nearby.

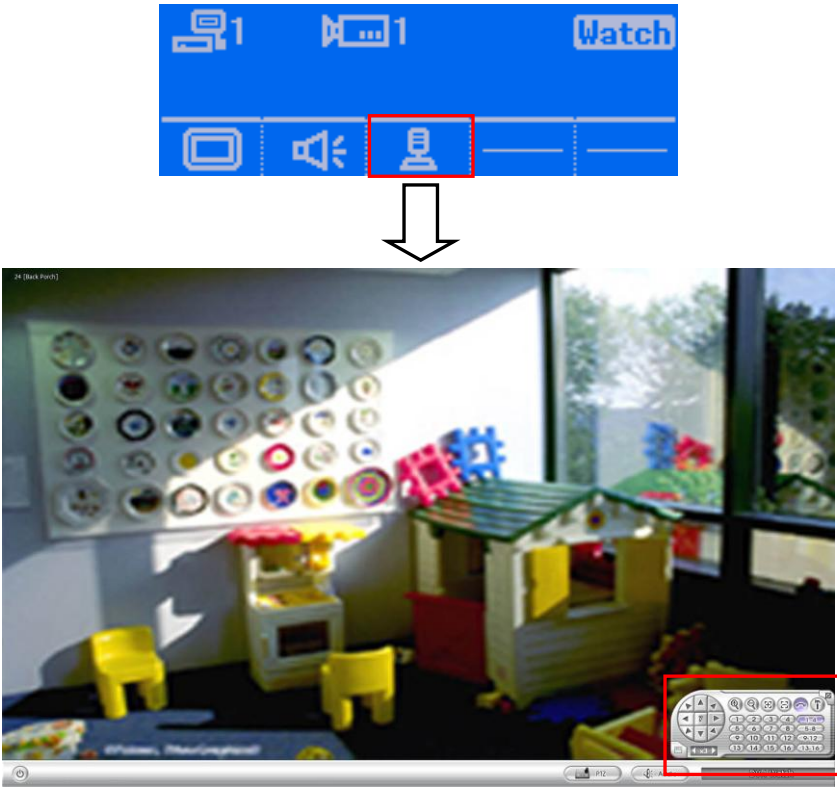
FOCUS




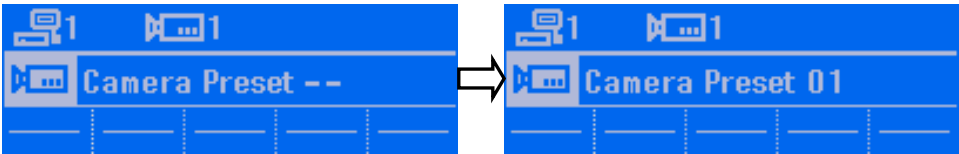
Move to the Preset position:

By pressing the  button and enter the preset position number, the camera will move to the preset position that user has setup.

- 1. In Watch Mode, press  button. And, the PTZ panel will show up on DVR Watch program UI.




- 2. Press  button and the Preset position screen will appear on LCD screen.
- 3. Using numeric key pad to enter the number of the preset position and press the **Enter** button.




If the preset position has not been set, there won't be any movement when the preset position has selected.

Enabling the AutoPan:


Enable/disable the PTZ camera move automatically that is based on the selected camera group preset position number.

- 1. In Watch Mode, press  button. And, the PTZ panel will show up on DVR Watch program UI.



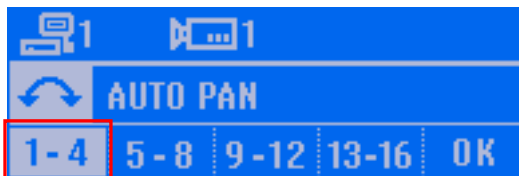
- 2. Press  button and the AutoPan screen will appear on LCD screen.



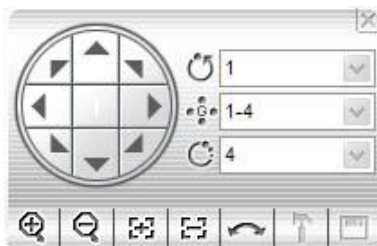
- 3. Press the preset position group number button (1-4, 5-8, 9-12, 13-16) and press  button to start auto pan.



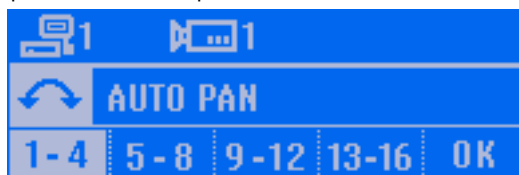
The auto pan group can be selected more than one group at the same time.



4. The auto pan function button and auto pan group button's color will turn into purple when auto pan function and group has been enabled.





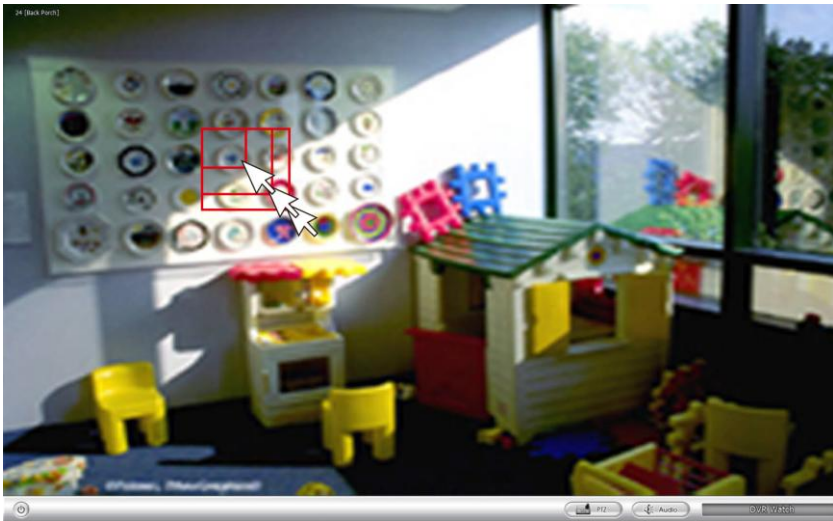
5. To stop auto pan, press selected preset position group number again and press **OK** button. And then, the auto pan function will stop.



Using Digital Zoom:

To enlarge the selected screen area for viewing.

1. In PTZ camera screen, press  button.
2. Using mouse or joystick (press the  button to switch to mouse function) to click drag the area that user wants to zoom in. A red frame will appear on the camera screen.
3. Right-click mouse or press button on top of joystick to enlarge the selected area.
4. To return to normal view, click on the enlarge area or press button on the top of joystick again.





4.1.1.13 **Monitor Mode Operation**


In Monitor mode, user can do the following operations. To switch to Monitor mode, please refer to [Switch to Monitor Mode](#) section.




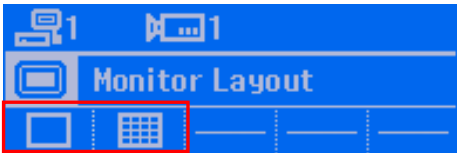
Select a Monitor Layout


In Monitor Layout, user can select channel or split screen mode to view.

1. Press the  button to enter **Monitor Layout** screen.
2. In Monitor Layout mode, user press  button. And then, enter the camera number that user wants to view and press **Enter** button on System Controller. The monitor screen will switch to the channel that user has entered.



IN MONITOR mode, press  button on System Controller, also can enter Layout Select mode.




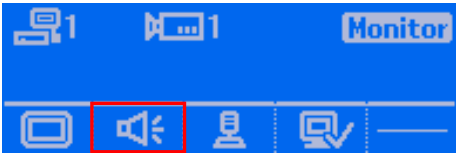
3. To switch back to split screen mode, press  button




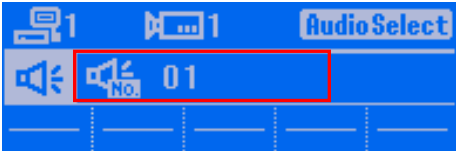
Enable/Disable Audio


Enable/disable audio play in Monitor mode. Only one channel at time allows playing audio sound.

- 1. In Monitor mode, press the  button to enter **Audio** mode screen.



- 2. In Audio mode, press  button and enter the channel that user wants to enable audio function.




- 3. To disable the audio function, press  button in Audio mode.

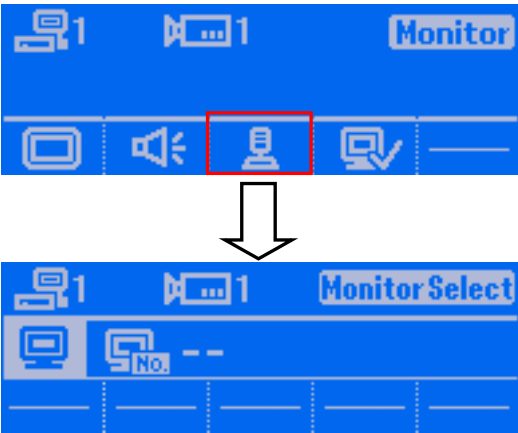


PTZ Operation in Monitor Mode

If the camera has enabled the PTZ function, user can use the System Controller to operate the PTZ camera in Watch mode.


Select an PTZ Channel:

- 1. Press  button and enter the PTZ camera number.



- 2. After selected the PTZ camera, the monitor screen will switch to the selected channel and PTZ panel will show up on the channel screen.



When PTZ indicator () is green light up, the PTZ operation is available.

Using the Joystick to Operate the PTZ Camera:

The joystick can move the camera to right, left, up, and down and also to zoom in and out of the camera.

■ **Panning**

Move the joystick to right or left.



■ **Tilt**

Move the joystick to up or down.





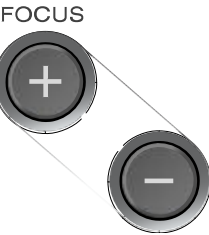
■ **Zoom in/out**

Rotate the joystick to the clockwise side to zoom in and counterclockwise to zoom out.





To Focus the Object:

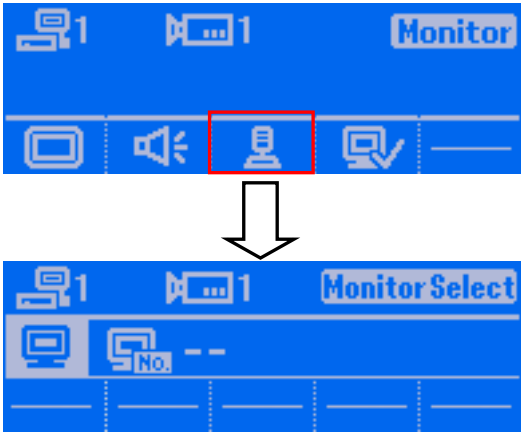
Press  button to focus the object in the distance. Press  button to focus the object in nearby.



Move to the Preset position:

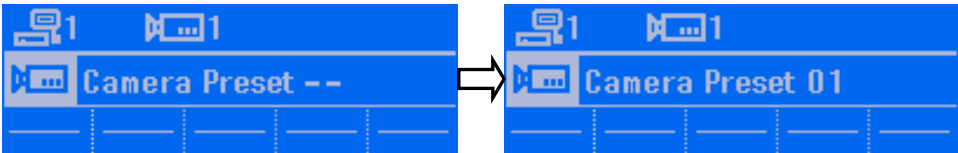
By pressing the  button and enter the preset position number, the camera will move to the preset position that user has setup.

1. In Monitor Mode, Press  button and enter the PTZ camera number.



2. After switch to PTZ camera channel, press  button and the Preset position screen will appear on LCD screen.


3. Using numeric key pad to enter the number of the preset position and press the **Enter** button.

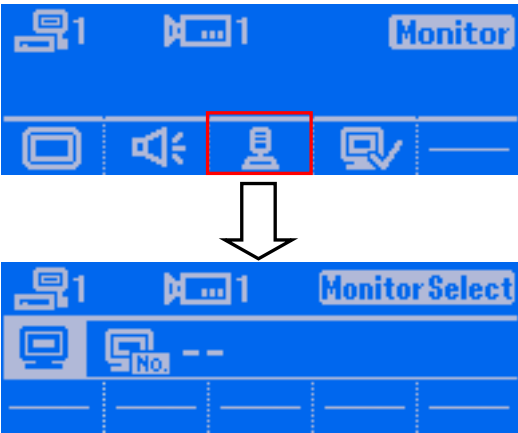


If the preset position has not been set, there won't be any movement when the preset position has selected.

Enabling the AutoPan:

Enable/disable the PTZ camera move automatically that is based on the selected camera group preset position number.


1. In Monitor Mode, Press  button and enter the PTZ camera number.



AUTOPAN

2. After switch to PTZ camera channel, press  button and the AutoPan screen will appear on LCD screen.



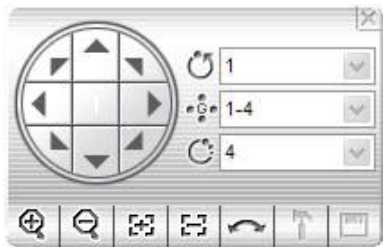
3. Press the preset position group number button (1-4, 5-8, 9-12, 13-16) and press  button to start auto pan.



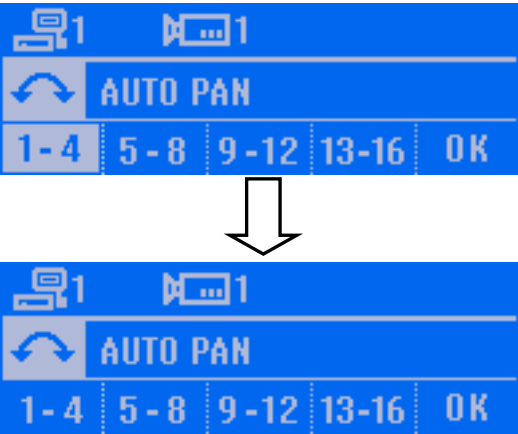
The auto pan group can be selected more than one group at the same time.



6. The auto pan function button and auto pan group button's color will turn into purple when auto pan function and group has been enabled.





7. To stop auto pan, press selected preset position group number again and press **OK** button. And then, the auto pan function will stop.



Using Digital Zoom:


To enlarge the selected screen area for viewing.

5. In PTZ camera screen, press  button.
6. Using mouse or joystick (press the  button to switch to mouse function) to click drag the area that user wants to zoom in. A red frame will appear on the camera screen.
7. Right-click mouse or press button on top of joystick to enlarge the selected area.
8. To return to normal view, click on the enlarge area or press button on the top of joystick again.



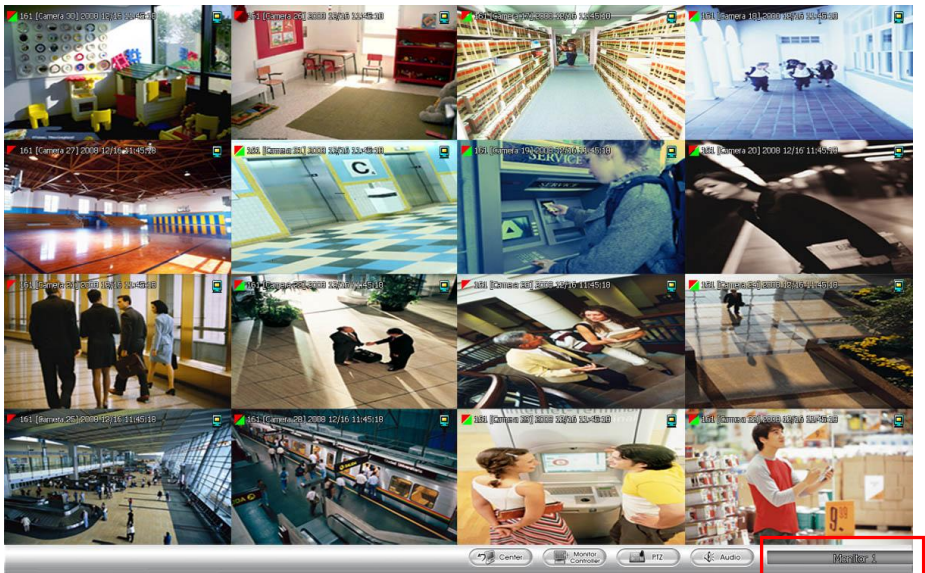
Switching to Different Monitor Group

User can select different monitor group to view.

1. In Monitor mode, press the  button to enter **Monitor Group Select** mode screen.
2. In Monitor Group Select mode, enter the monitor group number by using the numeric keyboard on the System Controller. And then, press **Enter** button to confirm.



3. The Monitor screen will switch the monitor group that user has entered.



Check the name of monitor group to make sure the monitor group has switched.

4.1.2 How to Apply a Google API Key

User need to apply an API key in order to use Google map function in CMS system(CM300 Gold version). Please follow the below steps to get an API key.



The Google map function only supported in CM3000 Gold version.

1. Go to Google webpage (www.google.com) to apply an account.
2. Click **Sing in**. If you have a Google account already, please login directly. Otherwise, click **Create an account now** to apply an account.

Google accounts

Sign in to personalize your Google experience.

Google has more to offer when you sign in to your Google Account. You can customize pages, view recommendations, and get more relevant search results.

Sign in on the right or [create one for free](#) using just an email address and password you choose.



[Gmail](#)

Get a fresh start with email that has less spam



[Web History](#)

Access and manage your web activity from any computer



[iGoogle](#)

Add news, games and more to the Google homepage



[Google Checkout](#)

A faster, safer and more convenient way to shop online

Sign in with your
Google Account

Email:

Password:

☐ Stay signed in

[I cannot access my account](#)

Don't have a Google Account?
[Create an account now](#)

©2009 Google - [Google Home](#) - [Terms of Service](#) - [Privacy Policy](#) - [Help](#)

3. In Create an Account page, fill in all necessary information and click **I accept, create my account**.
4. And then, go to the email address that you have entered when apply a Google account for verification. After verification, your Google account is ready for using.
5. Now, go to <http://code.google.com/intl/en/apis/ajaxsearch/signup.html> for applying an API key.
6. Please sign in first, and read the terms and conditions and accept. Click **Generate API Key**. User should get a set of API key that looks like "jdlfhslfslskjhjg" word string.

My favorites | English | Sign in

Google code Search

e.g. "ajax apis" or "open source"

Google AJAX Search API Home Docs FAQ Articles Blog Group Terms

[Using an API key](#)
[AJAX Search Wizard](#)

Google AJAX Search API

- [Developer Guide](#)
- [Class Reference](#)
- [Example Code](#)
- [Code Playground](#)
- [Samples](#)

Sign-up for an AJAX Search API Key

The Google AJAX Search API lets you embed Google Search in your personal web pages. A single AJAX Search API key is valid within a single directory on your web server, including any subdirectories. Signing up the URL <http://www.mygooglesearchsite.com/mysite/>, for example, will create a key usable within all URLs in the <http://www.mygooglesearchsite.com/mysite/> directory. See the [API documentation](#) for more information. You must have a [Google Account](#) to obtain a Google API key, and your API key is tied directly to your Google Account. You can generate multiple API keys for your account if you have multiple web sites.

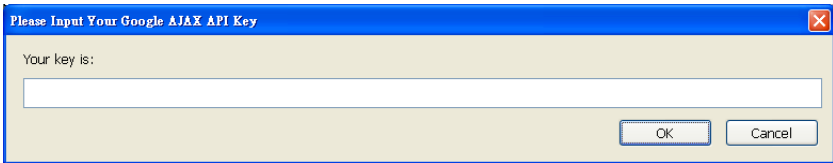
Here are some highlights from the terms of use for those of you who aren't lawyers (but be sure to read the entire document):

- Your web site must be freely accessible to end users.
- Google will upgrade this API periodically, and you must update your site to use new versions of the API as they become available. The Google AJAX Search API team will post notifications of updates on the [Google AJAX Search API Blog](#). If we make a change that isn't backwards-compatible, we will give you at least a reasonable amount of time to make the transition; during this period both versions of the API will be supported. Please transition your code as soon as possible to avoid interruptions in your service.

Google AJAX Search API Terms of Use

Thank you for using the Google AJAX Search API. By using the Google AJAX Search API (the "Service"), you ("You") accept and agree to be bound by the following terms and conditions (the "Terms of Use"). In addition, if your use of the Google AJAX Search API incorporates images or data from the Google Maps service, you agree to be bound by the Google Maps Terms of Use. If your use of the Google AJAX Search API incorporates videos or data from YouTube, you agree to be bound

7. In CMS system, enter the API key and click **OK**.



Please Input Your Google AJAX API Key

Your key is:

OK Cancel

8. How to use the Google map function, please refer to [Chapter 4.6.1.1](#).

4.2 DVR Setup

Display the list of all DVR servers. User may add up to 1000 DVR servers, delete and modify the DVR setting.



To upgrade the CMS to 1000 DVRs, please refer to [Chapter 1.1](#))

4.2.1 To Add and Remove DVR Server

1. Click **Setup**.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **DVR**.
4. In the DVR Setup section, click **Add** to insert, **Delete** to remove and **Edit** to modify DVR server setting.

DVR	Name	IP/Domain Name	Port	User	Status
1	90	192.168.153.90	5550	1	NV

Add Delete Edit

OK Cancel

5. To continue adding a DVR, in the text box, enter the name, IP/Domain, Login User, Password, Confirm Password of the remote DVR server.
6. If necessary, fill up the contact information to let the personnel in the CMS side know whom to get in touch with when an event has occurred.
7. Select the **Video Quality** for video display on the CMS system monitor screen. The default value is **Auto**. When the video quality is high, user can enable **Show POS message** box and the POS message will also display on the CMS system monitor screen.
8. Set the **Storage Path** for saving the recorded video data of the selected cameras on the Monitor screen.
9. Set the max video recorded storage capacity of this DVR server on the CMS system server. Enter the value in **Quota**.

DVR settings

Name

IP/Domain Name

Port

Login User

Password

Confirm Password

Video Quality ?

Remote Control port

Storage Path ... Free Space 34.42G (39.06G)

Quota GB

Contact Information

Phone

Mobile

Email

Address

Description

☐ Show POS message

OK Cancel

10. In the **DVR Setting** dialog box, click **OK** to accept the new setting and **Cancel** to exit without saving the new setting.
11. The CMS system will connect to DVR server. If the connecting time takes too long, user can click **Disconnect** button to cancel the connect action.

4.3 Camera Setup

Select the camera from different DVR servers in order to monitor on same screen. The selected cameras will be played on **Monitor** screen (see also [Chapter 3.3](#)).

Monitor setup

DVR Select

No.	Name	IP/Domain Name
0001	161	192.168.107.161

Camera Select

Grid of camera thumbnails (12 total). Buttons: Add, Add All, <, >.

Monitor Select

No.	Name	Record
001	Monitor 1	

Buttons: Add, Delete, Edit.

Screen type

☒ 4 : 3
☐ 16 : 10

Monitor Layout

☐ 2 x 2
☒ 3 x 3
☐ 4 x 4
☐ 5 x 5
☐ 6 x 6
☐ 7 x 7
☐ 8 x 8

Type

☒ Preview
☐ Hotspot
☐ Sequence
☐ Image (Setup)
☐ Matrix (Setup)
☐ None
Clear All

Camera Setting

Detail

OK Cancel

1. Click **Setup** from CMS main interface.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **Camera**.
4. Click **Add** to create a monitor set. Enter a name in **Name** column (12 characters only).
5. Mark **Enable Autoscan** and click **Detail** to select the monitor set for sequential display on the Monitor. When monitor set is an auto scan monitor set, it is no need to select any cameras for monitoring.
6. Enable **Add into Autoscan** list will make the monitor set became one of auto scan list.
7. To record the cameras video, mark the **Record** box. Otherwise, the cameras video will not be saved on the CMS system hard disk.
8. Mark **Show Server Time** to display the time on Monitor screen.
9. If user wants to playback the recorded video of monitor set, mark **Enable Playback** and enter the time (sec.) in **Start Playback Before** that is when start playback will start from the present time backward the time user has setup. To display the POS information on monitor screen, mark **Show POS message**. User can set the camera transmitting **Frame Rate**, but the real transmitting frame rate depends on camera setting.
10. Click **OK** to save the setting.



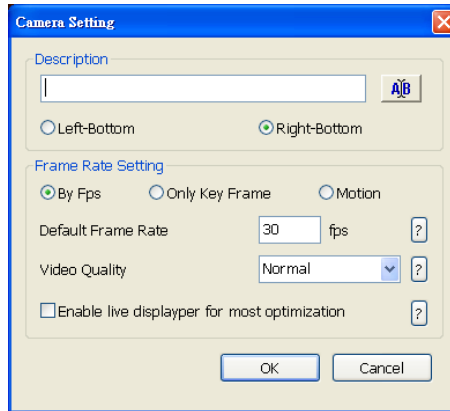
CMS only supports two monitor set for recording.

11. After the Monitor set has been created, select the DVR server. And then the cameras of the DVR server will display on the **Camera Select** window. User can combines different cameras from different DVR servers as a monitor set. And all cameras can be selected by different Monitor set repeat.
12. User can depend on the monitor size to select the screen type – **4:3** (regular screen monitor) or **16:10** (wide screen monitor). The 4:3 and 16:10 screen type support different monitor layout.
13. Select the camera that user wants to add, and then click **Add** button. The selected camera will be added to **Monitor Layout** window. User can add up to 64 cameras in 4:3 screen type and 80 cameras in 16:10 screen type. To remove the camera from the **Monitor Layout** window, select the camera and click **Delete** button. To delete all cameras, click **Clear All** button. User can enter a description for a channel.

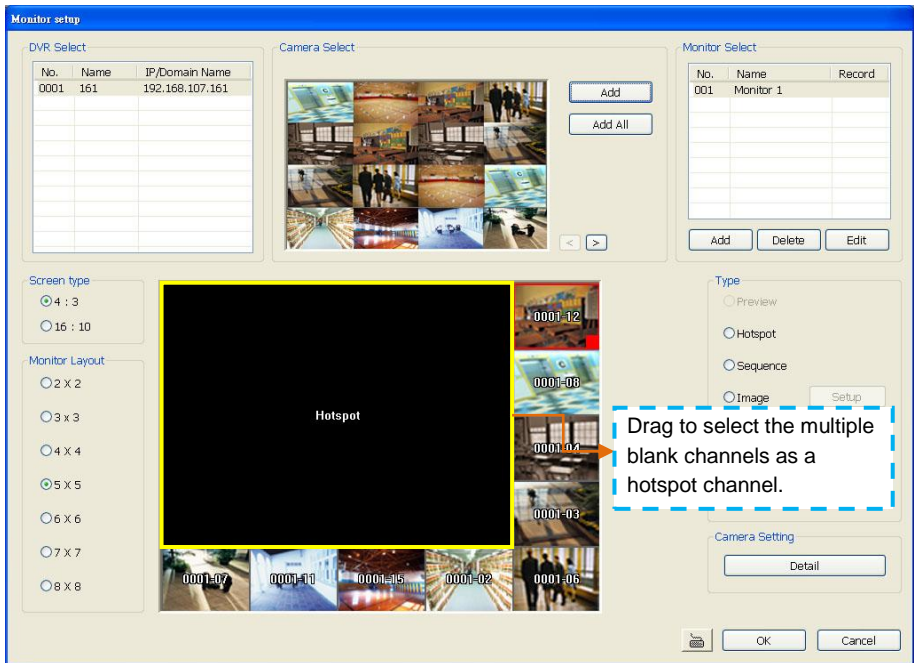


User can drag the camera channel to Monitor Layout window without using **Add** button.

14. In monitor set, each camera can be configured the name, transmitting type, and frame rate. Select the camera in monitor layout window and click **Detail** button of **Camera Setting**. And then, enter the name for the camera and select display position (**Left-bottom** or **Right-bottom**) of the camera name on monitor screen; click **A/B** to change the font.
15. Select the transmitting type by click the radio button – **By Fps**, **Only Key Frame**, or **Motion**. And then, set the frame rate of the camera in **Default Frame Rate** column. The value of frame rate will both apply to live video and recording.
16. Also, user can select the **Video Quality** – **High**, **Medium**, **Low**, or **Auto**. Mark the **Enable live displayer for most optimization** can improve the live video frame rate of the IP camera (jpeg megapixel) when viewing the multiple channels.



17. In Monitor Layout window, user also can set the channel for specific type functions instead of added cameras from DVR servers. In Monitor Layout window, select one of blank channel (NONE) and click the radio button of type (Hotspot, Sequence, Matrix, Image, or None).
 - **Hotspot:** To set the channel for displaying selected camera channel video. Click-and-drag to select multiple channels as a hotspot channel area.



In the Monitor screen, user can right-click and drag the camera to the hotspot channel for enlarge viewing.



- **Sequence:** Set the selected channel to automatically switch to display all camera channels in cycle.

- **Matrix:** set the selected channel to receive and display the alarm event from selected DVR servers. Click **Setup** to select the DVR servers. Enable the **Retrieve time** to set a period time (0 ~ 255 sec) for alarm event to display. If the retrieve time doesn't enable, the alarm event will display on screen until next alarm event come in.



On the DVR site, user need to enable and configure the matrix to send to CMS (please refer to **Alarm Setting** of NV/SA/NX user's manual).

The **Matrix setup** dialog box contains the following elements:

- DVR Table:** A table with columns 'No.' and 'Name'. It contains one entry: No. 0001, Name 161.
- Selected Table:** An empty table with columns 'No.' and 'Name'.
- Buttons:** '-->' (move right) and '<--' (move left) buttons between the two tables.
- Disabled DVR Table:** An empty table with columns 'No.' and 'Name'.
- Retrieve time:** A checkbox labeled 'Retrieve time' followed by a text box containing '0' and the label 'Sec.'.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

- **Image:** To insert an image on selected channel. The image supports *.bmp and *.jpg format. Click **Setup** and browse where the image located is.

The **File setup** dialog box contains the following elements:

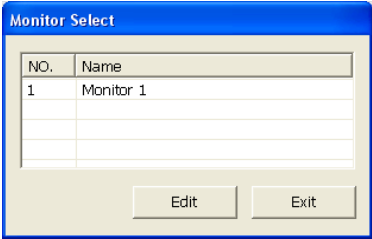
- File:** A text box for entering the file path, followed by a browse button (three dots).
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

18. Click **OK** to save the setup. To exit without saving, click **Cancel**.
19. To delete the monitor set, select the monitor set in **Monitor Select** window and click **Delete** button.
20. To modify the monitor set, select the monitor set in **Monitor Select** window and click **Edit** button.
21. To monitor the monitor set, please see [Chapter 3.3](#).

4.4 Schedule Setup

Schedule to record or backup of all the cameras either weekly or one time.

1. Select the Monitor set for scheduling.



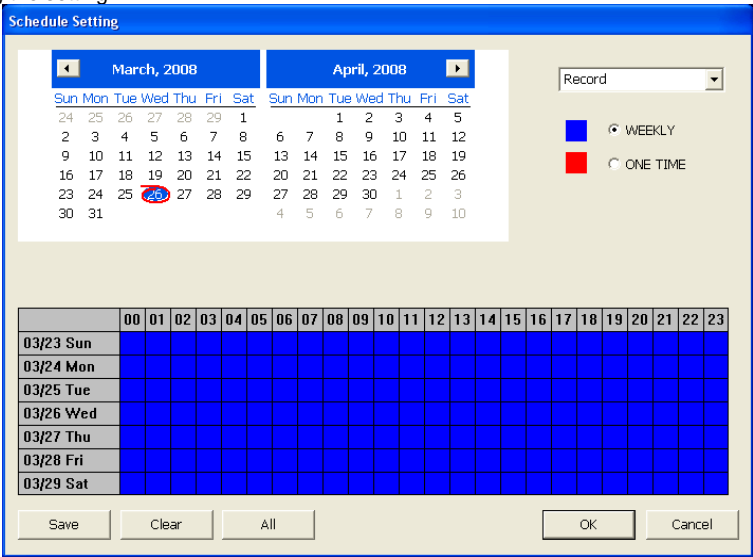
The Monitor set can be scheduled only when the recoding is enabling.

2. Select the date in the calendar. Use and buttons to shift the calendar to the left or right.
3. Select the condition you want to schedule in the drop down list.
- **Record**
Activate all the cameras to start video recording at the set time based on the Recording setting
 - **Backup**
Save another copy of all the data at the set time and specified backup path. DVR automatically updates and only backup the data that are not yet included in the archive. To assign backup path, click



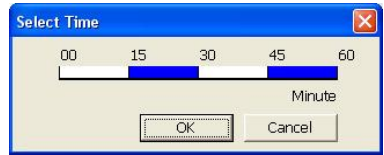
Make sure the backup folder and storage folder are not on the same drive.

4. Specify to either schedule it weekly or one time. Click to make a selection.
5. Click on the blocks to set the schedule (see also [Chapter 4.4.1](#)). Or click **All** to select all. To store the setting, click **Save**. To remove the settings, click **Clear**.
6. To end Schedule Setting, click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



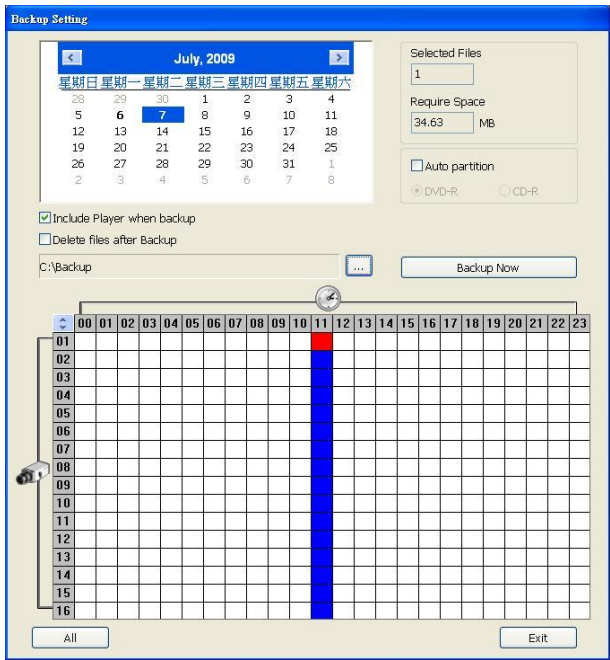
4.4.1 To set schedule at a specific portion of time in that hour:

1. **Right click** the colored blocks.
2. In the Select time dialog box, click to enable or disable the portion you want to set.
3. Click **OK** to accept the setting and **Cancel** to exit without saving the setting.

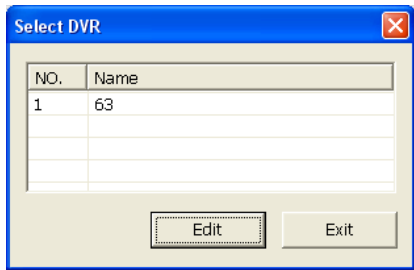


4.5 Backup Setup

In the Backup Setting dialog box, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera number.



1. Select the DVR that wants to backup



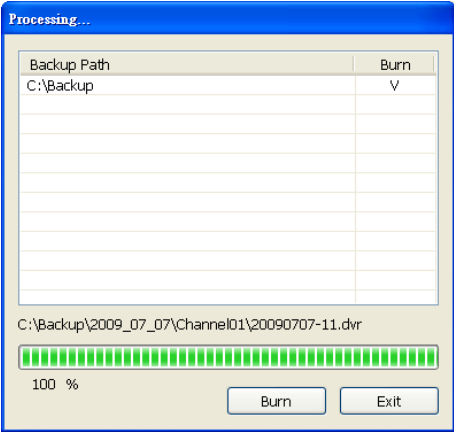
2. Select the date of the recorded file in the calendar you want to backup. Use ◀ and ▶ buttons to shift the calendar to the left or right.
3. In the table below, click on the blue block to select the recorded file or click camera (01~16) or time (00~23) to select the whole row or column. The blue block turns red when it is selected. The block that appears in white doesn't have data. If you want to set the specific time, right-click on the selected block. Then, set the time to start and end.
4. Check the information beside the calendar.

Selected Files : Show the number of files selected.

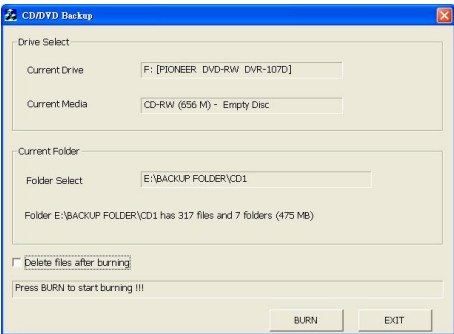
Require Space : Show the total size of the selected file.

5. Enable **Auto partition** and select to divide the file size into DVD-R or CD-R. DVR automatically backup and divide the file sizes to facilitate burning into DVD or CD disc.

- 6. Enable **Include player when backup** that will included a **Qplayer** program for playback backup file in backup folder when backup. Only administrator user has the authority to enable or disable this function.
- 7. If you do **NOT** want to keep the recorded file in the storage folder, enable **Delete files after Backup** check box.
- 8. Click **...** to set the path on where to store the backup file.
- 9. Click **Backup Now** to start archiving the selected file.
- 10. In the Processing... dialog box, to stop archiving press **Abort**. When done, in the Backup Path list, shows the archived item. To burn the file in CD, you need to have NERO 6 or above installed in your PC then select the item in the list and click **Burn**. Click **Exit** to end this procedure and burn it later.





- 11. In CD/DVD Backup, enable/disable Delete file after burning check box to remove the archived file after burning. Click **Burn** to start and **Exit** to cancel this process.

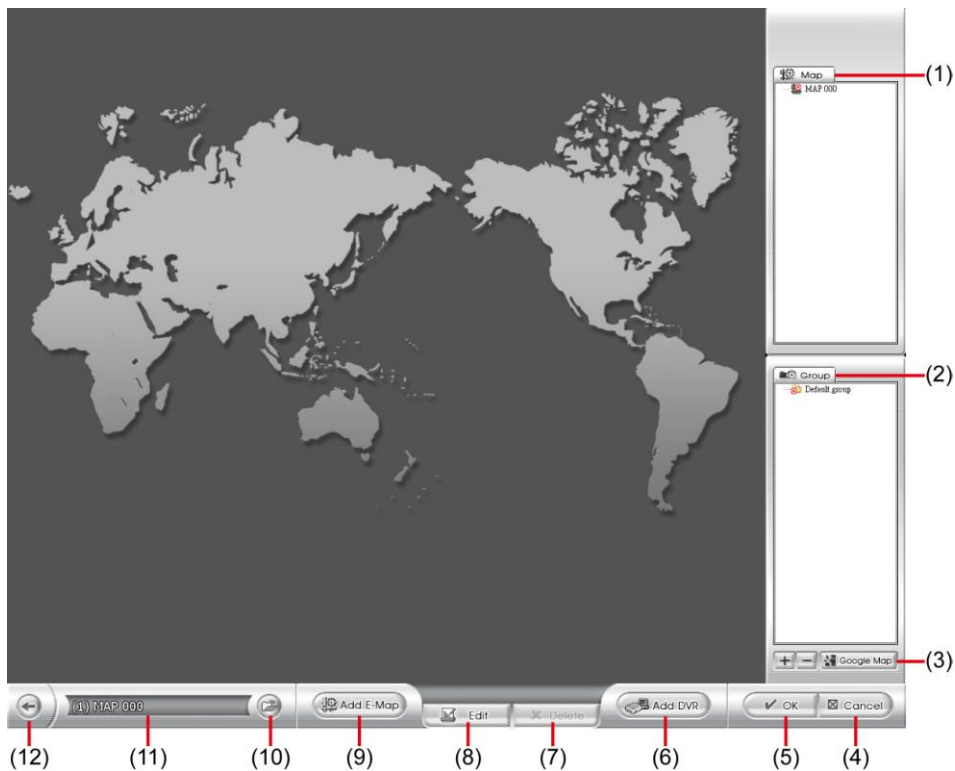


4.6 E-Map Setup

Holds up to 64 maps in *.bmp/*.jpg format. The map is hierarchy in structure and users can add a map on another map. User also may add the DVR icons on the map.


4.6.1 To Set Up the E-Map

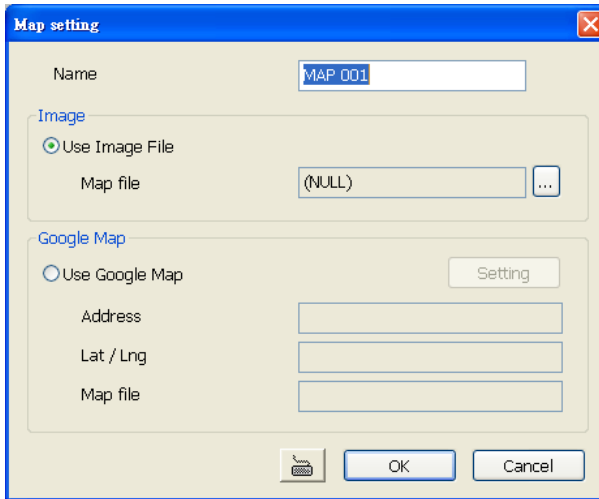
1. Click **Setup**.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **E-Map**.
4. The E-Map interface will show up in assigned monitor if user is using multiple monitors for the CMS system. If user is using single monitor for the CMS application, the E-Map interface will show up in front of the CMS application interface. Press **Esc** or click **Center** button to switch back to CMS application interface or press **F3** to switch to E-Map interface again.
5. On the E-Map interface:
 - **(1) Map List:** list all E-Map and all DVR servers that have been added on the E-Map.
 - **(2) Group List:** User can create the group to group DVR servers for easy management. Click  to add new group. Drag the DVR server from **Map List** window into the group. To delete the group, click . Double-click on the DVR server will call out the **DVR Watch** window(see also [Chapter 4.6.1.3](#))
 - **(3) Google Map:** Click **Google Map** to use Google map function to find the location map that user wanted and saves as an E-Map (see also [Chapter 4.6.1.1](#)). To enable the Google map function, please refer to **Google API Key** at [Chapter 4.1](#).
 - **(4) Cancel:** Without saving the setting and exit the E-Map interface.
 - **(5) OK:** To save the setting and exit the E-Map interface.
 - **(6) Add DVR:** Add a DVR server icon on the map. (see also [Chapter 4.6.1.2](#))
 - **(7) Delete:** To remove the DVR server
 - **(8) Edit:** To modify the selected DVR server
 - **(9) Add E-Map:** Add a new map. The new map is added on the current map as a next level. (see also [Chapter 4.6.1.1](#))
 - **(10)** Load a map to replace the current map
 - **(11)** Show the current name and layer of map
 - **(12)** go back to previous layer of map



Right-click on Emap could call out a short-cut menu.

4.6.1.1 Add a New Map

1. Click  button
2. In the Authorization dialog box, enter the administrator User ID and Password
3. Click **E-Map** button
4. In E-Map interface, click **Setup >> Add Map** button and the **Map setting** window will show up.




The 'Map setting' dialog box has a blue title bar with a close button. It contains the following fields and controls:

- Name:** A text box containing 'MAP 001'.
- Image:** A section with a radio button selected for 'Use Image File'. Below it is a 'Map file' text box containing '(NULL)' and a browse button '...'.
- Google Map:** A section with a radio button for 'Use Google Map'. To its right is a 'Setting' button.
- Address:** A text box.
- Lat / Lng:** A text box.
- Map file:** A text box.
- Buttons:** At the bottom are 'OK' and 'Cancel' buttons, and a small icon button on the left.

5. Give a name for the new map.
6. Select **Use Image File** or **Use Google Map**.

■ Use Image File

1. Click  to locate the map file. In the open dialog box, locate and select the map and click **Open**
2. User may now drag and move the Map icon to its place on the map.
3. User can double click the Map icon to view the map.
4. To edit and delete the map, click the map icon and **Edit** and **Delete** button will appear on the Map interface. Click **Edit** to modify the map. To delete the map, click the map icon and click **Delete** button.
5. Click **OK** to accept the new setting and **Cancel** to exit without saving the new setting.



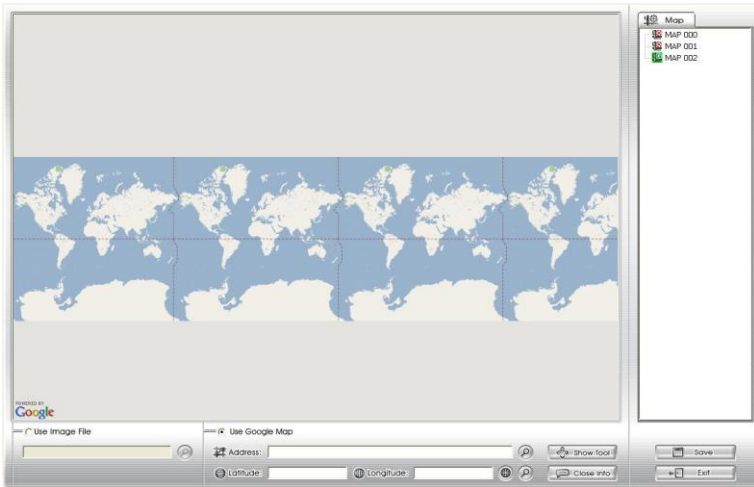
- User can add up to a total of 64 maps
- User can right-click on the map to call out a short-cut menu.

■ Use Google Map




The Google map function only supported in CM3000 Gold version.

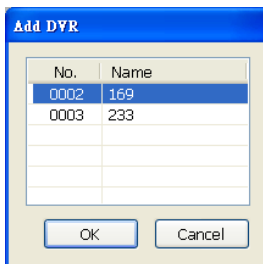
1. Click **Setting** and New map window will show up.



2. Select **Use Google Map**.
3. Right-click MAP in Map list can re-name the map.
4. User can enter the **Address** to find the map of the location.
5. Also, user can enter **Latitude** and **Longitude** to find the map of the location.
6. When the map of location has been found, click **Save** to save the map.
7. To exit, click **Exit**.

4.6.1.2 Add a DVR Server

1. Click  button
2. In the Authorization dialog box, enter the administrator User ID and Password
3. Click **E-Map** button
4. Click **Add DVR** button and the Add DVR window will show up.
5. Select the DVR server from the Add DVR window and click OK.



6. User may now drag and move the DVR icon to its place on the map.
7. To edit and delete the DVR server on the map, click the DVR server icon and the **Edit** and **Delete** buttons will appear on the Map interface. Click **Edit** to modify the DVR server (see [4.2.1 # 5~10](#)). To delete the DVR server from the map, click the DVR server icon and click **Delete**.
8. Click **OK** to accept the new setting and **Cancel** to exit without saving the new setting.



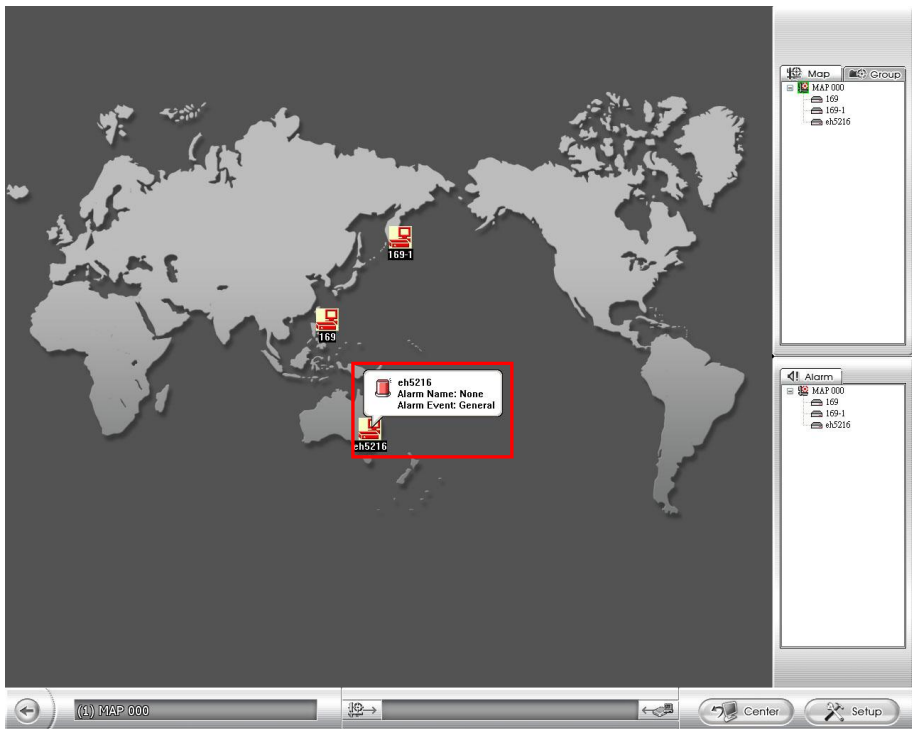
The functions of short-cut menu is listing below:

- **Add DVR:** To add a DVR server on the E-Map.
- **Edit DVR:** To modify the DVR server.
- **Delete DVR:** To delete the selected DVR server from the E-Map.
- **Change Bitmap:** Replace the E-Map with new map. The map file only support *.jpg and *.bmp.
- **Add New map:** Add up a New map on current E-Map level.
- **Remote EMAP:** To view the selected remote DVR server's E-map.
- **Remote I/O:** o view the selected remote DVR server's I/O status.
- **Setup OK:** To save the current configuration.

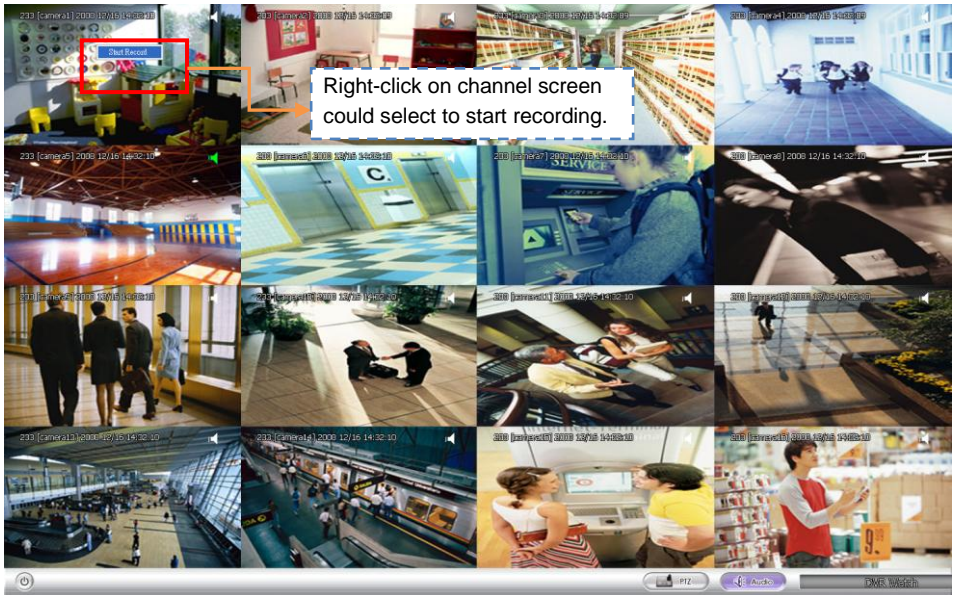
4.6.1.3 To Use the E-Map

When the alarm has been activated, the DVR icon blinks and turns red.

1. On the CMS main application, click **E-map** or press **F3**.
2. When the DVR server has an alarm occurred, use the mouse to point on the DVR server icon and the alarm information will show up.




3. Click the DVR server icon and a **DVR watch** window will show up and connect the DVR server to play the live video.
4. In DVR watch UI, user can call out PTZ control panel if the PTZ camera is available. Also, user can enable/disable the audio, but only one channel at a time can play the audio. The green audio icon indicates that the channel is playing audio now.



5. To stop the DVR server icon from blinking, right-click and select **Reset Alarm** or **Reset Alarm (all)**. The DVR server icon will stop blinking.
6. To switch back to the main application, press **ESC**.



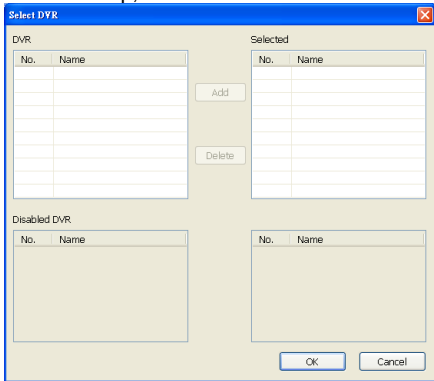
7. To setup the E-Map, click  button or right click the mouse button and select **E-Map setup** and the E-Map interface will switch to the E-Map setup mode. (see also [Chapter 4.6.1](#))
-
- i**
- If user uses dual monitor, the E-map setup mode is active in E-Map window and the E-map setup mode will not activate in CMS main screen.
 - Click **OK** or **Cancel** to exit the setup mode in E-Map interface.
-
8. User can click the Map icon on the map to view the map. And the map can be added level by level up to 64 maps. (see also [Chapter 4.6.1.1](#)).

4.7 Alarm Setting

In the **Alarm Setting** dialog box, just select and enable the condition for the system to alarm and the action for the system to perform when an alarm is activated. User can setup a total of 16 different combinations of alarm settings. Each alarm setting can apply to several DVR servers. Click **OK** to accept new setting and **Cancel** to exit without saving.

4.7.1 To setup an alarm condition

1. Click the **Add** button to add a new alarm condition.
2. Give the name of this alarm condition.
3. Fill the simply description of this alarm condition in **Description** column.
4. Apply to the DVR server, click **Select DVR**. In Select DVR window, select the DVR server and click **Add**. To exit and save the setup, click **OK**.



5. Select the **Conditions**.
6. Select the **Action**.(see [4.7.1.1](#) & [4.7.1.2](#) & [4.7.1.3](#) & [4.7.1.4](#) & [4.7.1.5](#) & [4.7.1.6](#)).

The 'Alarm Setting' dialog box is shown. It has a title bar and a close button. At the top are input fields for 'No.' (containing '1'), 'Name' (containing 'Alarm1'), and 'Description'. Below these are two main sections: 'Conditions' and 'Action'. The 'Conditions' section has two sub-sections: 'System' and 'Alarm'. The 'System' section has checkboxes for 'Connection loss' and 'Connection success'. The 'Alarm' section has checkboxes for 'DVR Exit', 'Login DVR', 'DVR Video Loss', 'DVR Hard disk failed', and 'General'. The 'Action' section has checkboxes for 'Make Phone Calls', 'Send E-Mail', 'Play Warning Sound', 'Launch program', 'SMS/MMS', and 'Popup video'. Each checkbox in the 'Action' section has a 'Detail' button next to it. At the bottom of the dialog is a table with columns 'No.', 'Name', and 'Description'. The table has one row with '1', 'Alarm1', and an empty 'Description' field. Below the table are 'Add' and 'Delete' buttons, a printer icon, and 'OK' and 'Cancel' buttons.

7. Click **OK** to save the setting. To cancel click **Cancel**.

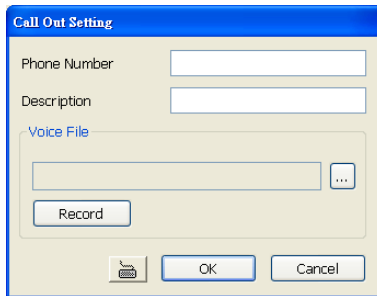
4.7.1.1 To Setup the Call Out List

To use this feature, the PC must have a voice modem connected to it. The supported audio system is only 8KHz and 16Bit mono.

1. Next to the Make Phone Calls check box, click **Detail**.
2. In the Call Out List, click Add to insert a new contact number, Modify to edit the selected item, Remove to delete the selected item, Test to check if it is working.



3. In the Call Out Setting, enter the phone number and description. Click ... to select existing recorded sound and click **Record** to make a new voice message.



4. When the Sound Recorder appears, use the record control panel to record, stop, play, rewind and forward. If you want to keep the existing file, click **File > Save As...**, enter filename and click Save. Make sure you have microphone connected to your PC.
5. Click **OK** to exit and accept the setting and click **Cancel** to exit without saving the setting.



To use make phone call function, please make sure you deselect the option "**wait for dial tone before dialing**" in modem properties in control panel of your Windows OS.

4.7.1.2 To Setup the Send E-Mail Setting

Next to the Send Email check box, click Detail. In the E-mail Setting dialog box, click OK to exit and save the setting and Cancel to exit without saving the setting.

The screenshot shows the 'E-Mail Setting' dialog box with the following sections and callouts:

- (1) Mail Server:** Includes fields for SMTP Server, Port (set to 25), Authentication checkbox, ID, and Password.
- (2) Mail:** Includes fields for From, To, CC, and Subject, a large text area for the Message, and a Test Account button.
- (3) Email Notice Setting:** Includes a Notice Interval field set to 5 minutes.
- (4) Modem Dial up Setting:** Includes checkboxes for Auto Dial up and Auto Disconnect after, with a dropdown for modem selection and a field set to 1 minute for disconnect time.

At the bottom are buttons for a printer icon, OK, and Cancel.

(1)Mail Server

Enter the SMTP Server and port. If your e-mail system requires user identification, enable the **Authentication** check box and enter User ID and Password.

(2)Mail

To check if it is working, click the Test Account button.

From: Enter the sender e-mail address.

To and CC: Enter the recipient email address and separate it with comma or a semicolon (;).

Subject: Enter the message title.

Message: Type the message.

(3)Email Notice Setting

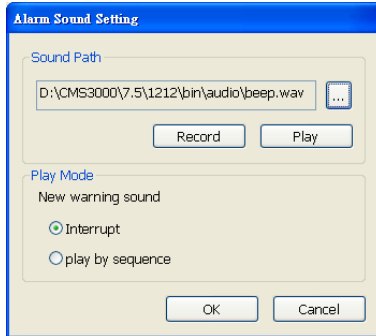
In the Notice Interval text box, set the period of time before it sends another e-mail notice.

(4)Modem Dial up Setting

If you are using dial up modem, enable Auto Dial up check box and select the modem name. You may also set the time to disconnect automatically, just enable the Auto Disconnect after check box and set the time.

4.7.1.3 To Setup the Alarm Sound Setting

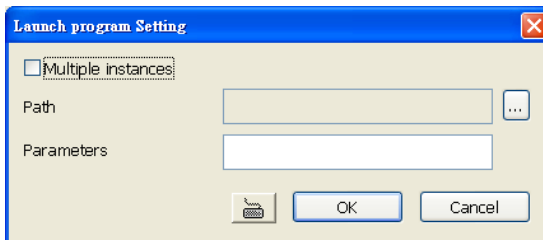
1. Next to the Play Warning Sound check box, click **Detail**.



2. In the Alarm Sound Setting dialog box, click **...** to select other wav file from other source or folder, **Play** to listen, **Record** to make a new copy of a sound.
3. Select the **Play Mode**.
- ✓ **Interrupt**: when receive the new alarm warning, immediately play new warning sound.
 - ✓ **Play by sequence**: when receive the new alarm warning, play after the on playing alarm warning.
4. If you click **Record**, you will be prompted if you want to replace the file. Click **OK** to continue and **Cancel** to discontinue.
5. When the Sound Recorder appears, use the record control panel to record, stop, play, rewind and forward. If you want to keep the existing file, click **File > Save As...**, enter filename and click **Save**. Make sure you have microphone connected to your PC.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

4.7.1.4 Launch program

To call up the external program that is provided by a 3rd party. Click Detail and click **...** to locate the program path. Enable the **Multiple instance** check box if the external application has been programmed to execute repeatedly.



4.7.1.5 To Set the MMS/SMS Setting

To use this feature, GSM/GPRS modem is required. Connect the GSM/GPRS modem to the serial COMM port of PC. Next to the SMS/MMS check box, click **Detail**.

The screenshot shows the 'MMS Application V1.6' dialog box. It has three main sections: 'Modem Setup', 'SMS Setting', and 'MMS Setting'.
- 'Modem Setup' includes a 'ComPort' dropdown menu and an 'Enter Pincode' button.
- 'SMS Setting' has a checked 'Enable' checkbox, a 'Message Text' input field, and an 'SMS Test' button.
- 'MMS Setting' has a checked 'Enable' checkbox, 'Login' and 'Password' input fields, 'APN' (set to 'emome'), 'Wap Proxy IP' (set to '10.1.1.1'), and 'MMSC' (set to 'http://mms.emome.net:8002/'). It also has 'Result' and 'Response' fields both set to 'N/A', 'Import...' and 'Export...' buttons, a 'Subject' input field, and a 'Message Text' input field with an 'MMS Test' button.
At the bottom are 'Save' and 'Cancel' buttons.

1. Select the port number in **ComPort** drop down list from where the GSM/GPRS modem is connected.
2. Click **Enter Pincode** button to fill in pin code of your mobile phone if your mobile system require verifying pin code for SMS/MMS sending.



The incorrect pin code will lock your sim card.

The screenshot shows the 'Enter your PIN' dialog box. It has a 'Pincode' label and a 'Code' input field. Below the input field is a warning message: 'Be careful : SIM can be blocked after a number of false codes.' At the bottom are 'Save' and 'Cancel' buttons.

3. In **Phone Num** text box, enter the contact number.
4. You may now set to send thru SMS or MMS. If you enable **SMS setting**, just enter the message in the **Message Text** box. Click **SMS Test** to verify the SMS setup is available.
5. If you enable MMS, enter the Loing account, Password, APN name, WAP IP, MMS address, subject of MMS message and the message. User can **Import** the previous MMS setting or **Export** the current MMS setting. If you are not sure, please contact your mobile service provider. To verify the setting, click **MMS Test**.
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.

4.7.1.6 **Popup Video**

The Popup video will co-work with alarm condition of **Receive Alarm**. When user selects the alarm condition of Receive Alarm, and then the action of Popup video will be un-gray and available for select. The popup video will show up 4 windows at once. To setup Popup video, please see [To Setup Popup Video](#).



On the upper right corner of popup video window, there two figures that are to represent nailed popup video window and mini center function.



(a) To call out DVR watch window. The DVR watch window will display the DVR all channels' video image as below shown.

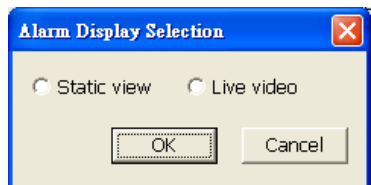


(b) To nail popup video window for avoiding new coming alarm video to replace it.

(c) To call out MiniCenter(also see [Chapter 3.3](#))

To Setup Popup Video:

1. In Alarm setting window, Click **Detail** of popup video.
2. Select the type of popup video
 - **Static View:** The DVR server only transmits one frame of video and popup on CMS site.
 - **Live View:** The DVR server will continue to transmit video to CMS site while popup video window is open.
3. To close popup video window, just click "X" of window.



4.8 User Setting

CMS supports 256 user account that includes operator and administrator account.

1. Select the Authorization Level – **Operator** or **Administrator**. User can define each operator/administrator account's authority of DVR server and Monitor set. **Only the administrator is authorized to close and customize the CMS system.**
2. Enter the **Name**, **Description**, **Password**, and **Confirm password** of the account.
3. Select the DVR servers that allow this account user to preview and playback. The DVR server with check mark means is selected.
4. Select the Monitor set that allow this account user to view. The Monitor set with check mark means is selected.
5. User can assign a valid date for Operator user. Select **Begin Date** and **End Date** to assign a valid date for operator account. **The account only will be available during the assigned date.**
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.

User Setting

Authorization Level

☒ Operator

☐ Administrator

Name

Password

Description

Confirm Password

Allowed DVR View For This User

NO.	DVR Name	Watch This DVR
1	EXR	<input checked="" type="checkbox"/>
2	nv	<input checked="" type="checkbox"/>
3	nv5k-43c	<input checked="" type="checkbox"/>
4	183	<input checked="" type="checkbox"/>
5	aa8	<input checked="" type="checkbox"/>

Click to select

Allowed Monitor View For This User

NO.	Monitor Name	Watch This Monitor
1	Monitor 1	<input checked="" type="checkbox"/>
2	Monitor 2	<input checked="" type="checkbox"/>
3	Monitor 3	<input checked="" type="checkbox"/>
4	Monitor 4	<input checked="" type="checkbox"/>
5	Monitor 5	<input checked="" type="checkbox"/>
6	Monitor 6	<input checked="" type="checkbox"/>
7	Monitor 7	<input checked="" type="checkbox"/>

☐ Enable Valid Date Configuration

Begin Date

7/14/2008

End Date

7/14/2008

OK

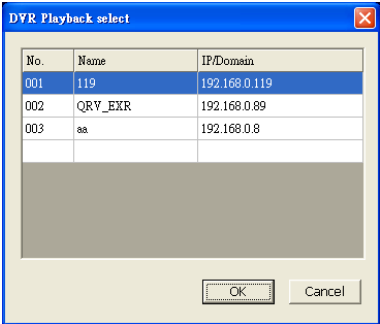
Cancel

Chapter 5 Using the Playback Function

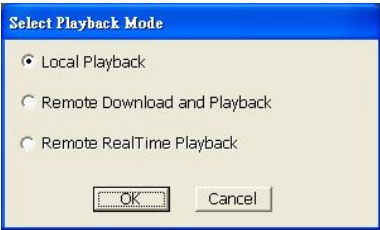
User can choose to playback video stored on the local hard disk or download the video from the remote side of the DVR server.

5.1 To Playback the video

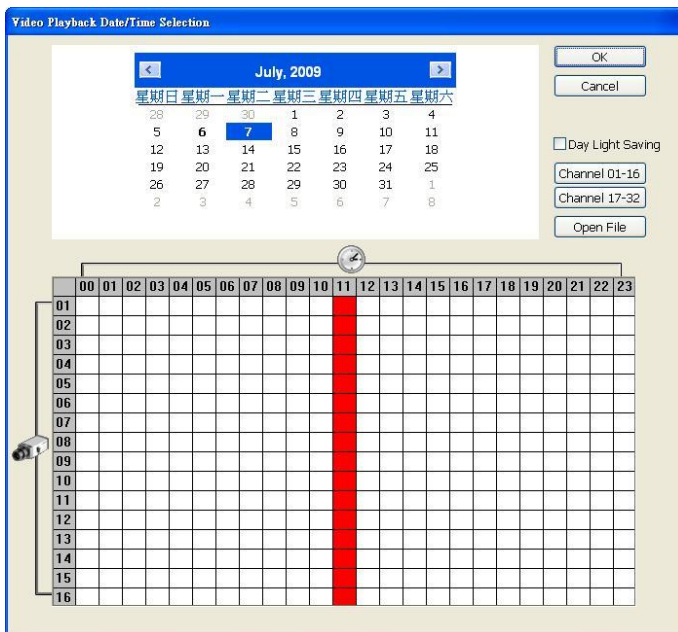
- 1. Click 
- 2. In the **DVR Playback select** window, select DVR server to play video from the remote DVR server.



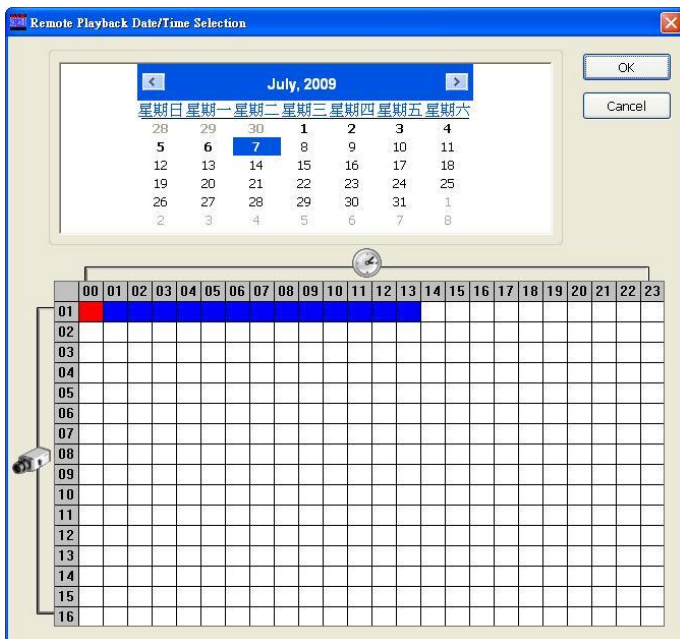
- 3. You can select Local Playback, Download and playback or RealTime playback. Click **OK** to proceed and **Cancel** to void this operation.



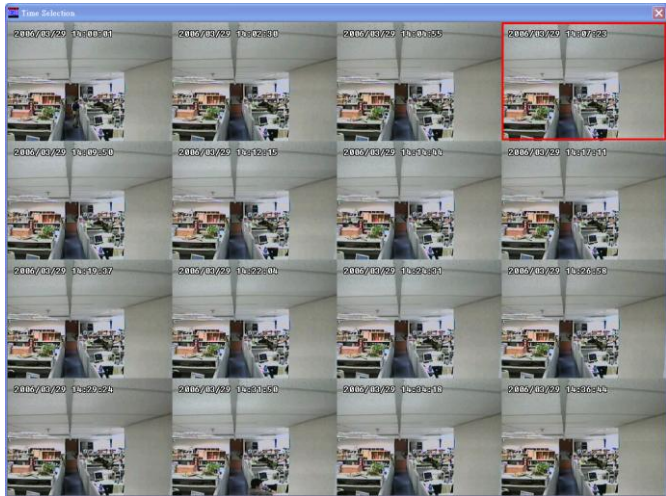
- 4. For Local Playback, user can select to preview 16 channels at a time. Only the cameras previously selected in **Monitor** and with the **Record** enabled can be playback. In the Video Playback Date/Time Selection, the numbers from 00 to 23 represent the time in 24-hour. The numbers from 01 to 16 represent the camera number. The blue block indicates that there is a recorded video file in that period of time. While the red bar indicates the selected recorded video for viewing (see also [5.2 Using the Local Playback Application](#)).



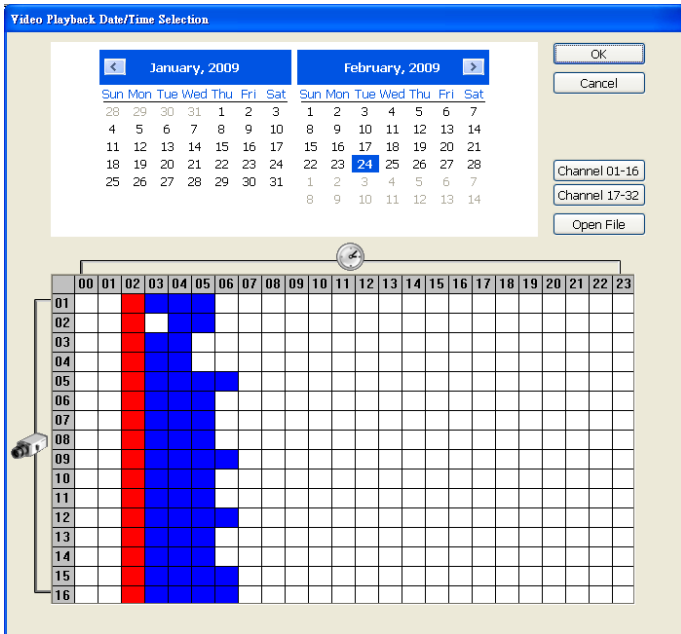
5. For Download and Playback, the numbers from 00 to 23 represent the time in 24-hour in the Remote Playback Date/Time Selection window. The numbers from 01 to 16 represent the camera number. The blue block indicates that there is a recorded video file on that period of time. While the red block indicates the selected recorded video for viewing.



6. In the Time Selection screen, click on the video thumbnail you want to download and open (see also [5.3 Using the Download and Playback Application](#)).



7. For RealTime Playback, the number from 00 to 23 represent the time in 24-hour clock in the Video Playback Date/Time Selection window. The numbers from 01 to 16 represent the camera number.(see [5.4 Using the RealTime Playback Application](#))

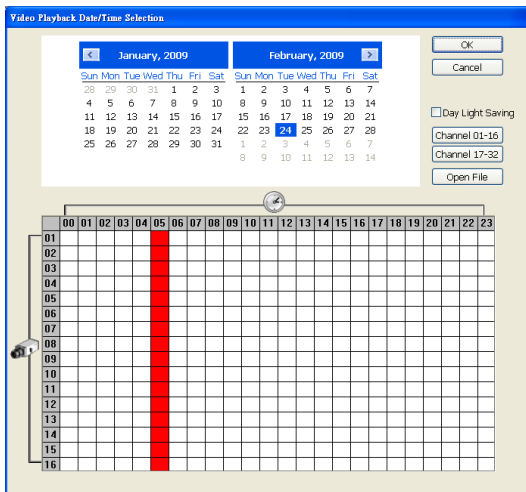


5.2 Using the Local Playback Application



Name	Function
(1) Split Screen Mode	Select from six (6) different split screen types to playback the recorded video file of all the cameras, or one camera over the other or alongside on a single screen.
i - If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode. - To zoom into an area on the screen, Right click and Drag a square on the area you want to enlarge. - To view 32 channels, click 16 split screen mode button to view 16 channels each time. Check the camera ID icon to know which channels are displaying now.	
(2) Exit	Close the Player.
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
(5) Playback Control Buttons	Begin: Move to the beginning of the recorded video file. Previous: Go back to the previous frame. Slower: Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. Rewind: Wind back the recorded video file. Pause: Briefly stop playing the recorded video file. Play: Play the recorded video file. Faster: Play the recorded video file at the speed of 2x, 4x, or 8x, 16x, 32x. Next: Go to the next frame. End: Go to the end of the recorded video file.

Name	Function
(6) Archive	<p>Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.</p> <ul style="list-style-type: none"> – Also, user can open the recorded file from certain location by click OPEN FILE button – Click Channel 01~ 16 and Channel 17 ~ 32 button to switch to different channel group of playback calendar. – Mark Day Light Saving, the playback calendar will show the available playback records during day light saving period.




i	<p>The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.</p>
(7) Status bar	Display the recorded date, time and play speed.
(8) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(9) Export	<p>Export includes Snapshot, Print, and Output Video Clip function.</p> <ul style="list-style-type: none"> ■ Snapshot: Capture and save the screen shot either in *.jpg or *.bmp format. ■ Print: Print the screen shot. ■ Output Video Clip: Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 5.5).
(10) Segment	Keep a portion of the recorded video you want (see also Chapter 5.5).
(11) Full screen	<p>View in Playback-compact mode. To return, Right click the mouse or press ESC on the keyboard.</p> <p>When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.</p>
(12) Bookmark	Mark a reference point when previewing the recorded video file to which you may return for later reference. You may also set it to protect the file. (See also Chapter 5.6)
(13) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second (See also Chapter 5.7).

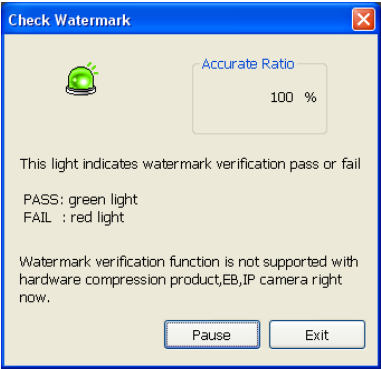
Name	Function
(14) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search only.
(15) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion, Video Loss, POS) (See also Chapter 5.8).
(16) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 5.9).
(17) Audio	Enable/disable audio and adjust volume
(18) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

5.3 Using the Download and Playback Application



Name	Function
(1) Exit	Close the player
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Playback Control Buttons	Begin: Move to the beginning of the recorded video file. Previous: Go back to the previous frame. Slower: Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. Rewind: Wind back the recorded video file. Pause: Briefly stop playing the recorded video file. Play: Play the recorded video file. Faster: Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x. Next: Go to the next frame. End: Go to the end of the recorded video file.
(4) Language	To switch the application tips' display language
(5) Export	Export includes Snapshot, Print, and Output Video Clip function. <ul style="list-style-type: none">■ Snapshot: Capture and save the screen shot either in *.jpg or *.bmp format.■ Print: Print the screen shot.■ Output Video Clip: Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 5.5).
(6) Segment	Keep a portion of the recorded video you want. You may follow the instruction in Chapter 5.5 .
(7) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard. When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.



Name	Function
(8) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 5.7)
(9) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(10) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion, Video Loss, POS) (See also Chapter 5.8).
(11) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 5.9).
(12) Audio	Enable/disable audio and adjust volume
(13) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.
(14) Watermark	<p>To verify the playback video has not been modified.</p> <p>Click  to check the video. Watermark verification window will show up as following:</p>



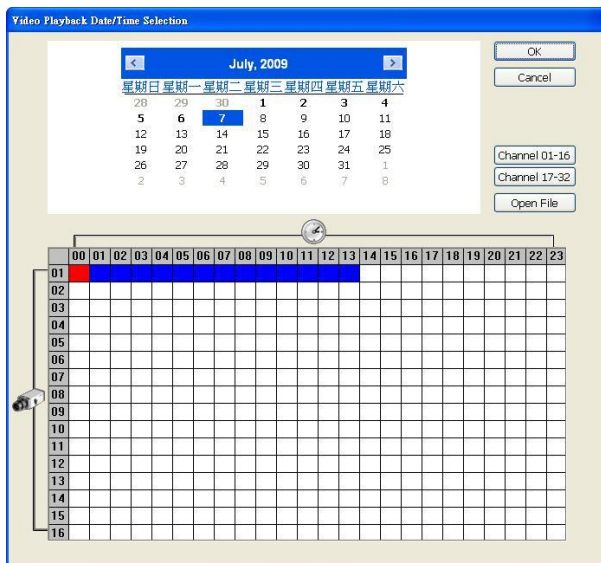
Watermark verification doesn't support on EB series DVR and the video that is recorded from IP camera.

5.4 Using the RealTime Playback Application



Name	Function
(1) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera.
	<ul style="list-style-type: none"> - If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode. - To zoom in an area on the screen, Right click and Drag a square on the area you want to enlarge.
(2) Exit	Close the player
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
	The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.
(5) Playback Control Buttons	<p>Begin: Move at the beginning of the recorded video file.</p> <p>Previous: Go back to the previous frame.</p> <p>Slower: Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x.</p> <p>Rewind: Wind back the recorded video file.</p> <p>Pause: Briefly stop playing the recorded video file.</p> <p>Play: Play the recorded video file.</p> <p>Faster: Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x.</p> <p>Next: Go to the next frame.</p> <p>End: Go to the end of the recorded video file.</p>

Name	Function
(6) Archive	<p>Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.</p> <ul style="list-style-type: none"> – Also, user can open the recorded file from certain location by click OPEN FILE button – Click Channel 01 ~ 16 and Channel 17 ~ 32 button to switch to different channel group of playback calendar.



- i** The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Status bar	Display the recorded date, time and play speed.
(8) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(9) Export	Snapshot: Capture and save the screen shot either in *.jpg or *.bmp format.
(10) Full screen	<p>View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard.</p> <p>When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.</p>
(11) Event Log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(12) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(13) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 5.9).
(14) Audio	Enable/disable audio and adjust volume

Name	Function
(15) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

5.5 To Cut and Save the Wanted Portion of the Recorded Video

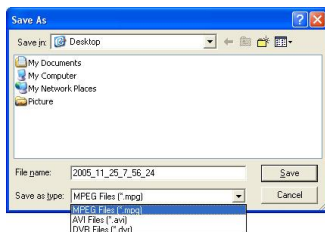
1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.



2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation or set the segment marks from the start, click **Segment** button again.

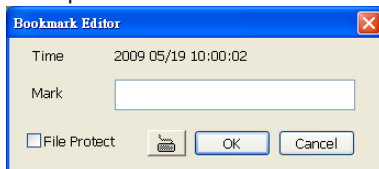


3. Click **Output** button to save the wanted clip.
4. In the Save As dialog box, locate on where you want to save the file, type the filename, and select the video format.



5.6 To Bookmark a Section of the Video

1. Click **Bookmark**. The video playback stops when the bookmark button is executed.
2. In the Bookmark dialog box, you may do the following:
 - **Add** to include the new reference mark in the bookmark list. You may select to enable/disable **File Protect** to protect the bookmark file for overwritten.





- When the bookmark is protected, the file won't be overwritten.
- The protected bookmark file will be deleted when the **Delete the recorded data** is enable in the **Backup setting**. (also refer to [Chapter 4.5](#))

- **Edit** to change the mark description or enable/disable file protection.
 - **Delete** to remove the selected reference mark in the list.
 - **Delete All** to remove all the reference marks in the list.
 - **Exit** to close Bookmark dialog box.
3. Select and click one in the bookmark list to preview the file.

5.7 To Search Using the Visual Search

1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.

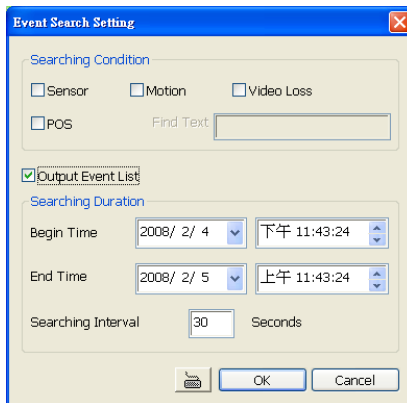



3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every Minute of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click . To view from the selected frame and close event search, click .



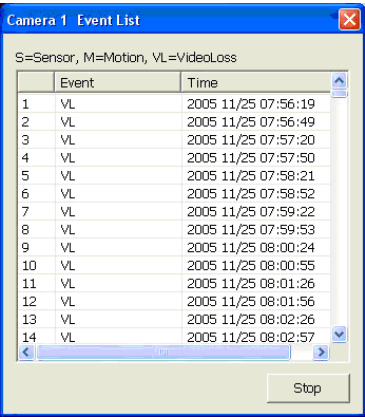
5.8 To Search Using the Event Search

1. Click on the video screen on where you want to search.
2. Click **Event Search**. The **Event Search** text (red) would appear at the lower left corner of the screen.




3. In the **Event Search Setting** dialog box, check the type of condition you want to search. If you select POS, in the Find Text box, type the word. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching, click .

4. You may also set to search and list all the result. Just check the **Output Event List** box. In the Search Duration section, set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching.
5. When the Event list appears, click and select the item you want to view.



	Event	Time
1	VL	2005 11/25 07:56:19
2	VL	2005 11/25 07:56:49
3	VL	2005 11/25 07:57:20
4	VL	2005 11/25 07:57:50
5	VL	2005 11/25 07:58:21
6	VL	2005 11/25 07:58:52
7	VL	2005 11/25 07:59:22
8	VL	2005 11/25 07:59:53
9	VL	2005 11/25 08:00:24
10	VL	2005 11/25 08:00:55
11	VL	2005 11/25 08:01:26
12	VL	2005 11/25 08:01:56
13	VL	2005 11/25 08:02:26
14	VL	2005 11/25 08:02:57

5.9 To Search Using the Intelligent Search

1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The **Intelligent Search** text (red) would appear at the lower left corner of the screen.
3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching, click .
4. You may also set to search and list all the result. Just check the **List** box. In the Search Duration section, set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching.



Intelligent Search in Local Playback Mode